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ITU
WHO Make Listening Safe Initiative Meeting
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>> GUY FONES: Let's start. Lots of excitement in the room and let's turn it into dialogue and action and discussion in the room. Very good morning to you in the room and to those online. I had an opportunity to meet some of you outside. I'm the new face here. I will represent myself briefly. I see lots of excitement in this virtual and vibrant community looking forward to engaging you and looking forward to scoping the vision for the next phase of the initiative. Let's go to formalities then. Yes. I will welcome you and all those online and others that will join us in the next sessions and welcome you to WHO IT consultation hosted by longstanding partner and sister agency ITU for longstanding commitment and hospitality. I'm Guy Fones. On the one hand due to high prevalence of 1.5 billion people having hearing loss currently and many experience debilitating due to loud sounds and what drives our common effort is that we know what -- that many causes of hearing loss can be prevented

through strong public health action and most important and common of these is exposure to noise and loud sounds. Estimates suggest over 1 billion people are at risk of unsafe listening practices hearing damage as consequences of loud sounds is irreversible and is avoidable by safe listening practices.

This topic is repeatedly raised by Member States at WHO world health assemblies and executive board discussions and highlighting need for collaborative action to address growing risk of hearing loss. In response, WHO developed Make Listening Safe initiative a game changer in hearing health and launched a decade ago with eye catching broken egg brought visibility to hidden agenda. Message is clear WHO is not against music enjoyment or fun and is possible to do all these without putting one's hearing at risk. To make this possible we partner with ITU engage with a wide group of stakeholders private sector and music makers and representatives with target groups and people who experience hearing loss. Through a collaborative effort this initiative made a mark and leading companies many of which are here today confitted with safe listening options in line with WHO ITU standards sound generation management and control are increasingly being sensitized to this topic and several governments formalize safe listening regulations.

For collaboration, advocacy and hard work, we thank you and as we reflect on many successes of this initiative, it is not a. Time to let up in collaborative efforts.

Whether you present professional groups, industry users, or governments, we all need to move forward with renewed energy and commitment to tackle this challenge and need to change age-old narrative on listening and loudness. Louder is not better but draw world focus on listening experience and sound quality and public initiative is to protect one's hearing and has a deeper

meaning speaking to us we enjoy immersive sounds interacting with and experiencing environment whether physical or virtual and sure you have heard the benefit of music on physical mental and emotional health and enjoyed (?) For listening for me. For example, listening to 80s and 90s classic in a way is a way for me to de-stress and focus my mind and ensure that all people keep enjoying that and many pleasures of listening throughout their course of their life it is essential to make safe listening a reality and are happy to have ITU as a strong partnership and thank them for collaboration and support in efforts to Make Listening Safe and happy to meet all of you traveling to be with us in person and connecting virtually today and believe we have been associated with this initiative since inception in 2015 and thank each of you for your support and engagement and will have a moment in a few minutes to meet you all and present yourselves and get acquainted.

And we will have an opportunity to reflect on achievements and challenges and next decade and plan for next decade of action for safe listening and looking forward to working with all of you on this invite our champion partner through Dr. (?) Deputy director for ITU telecommunications standard bureau and policy development to welcome on behalf of ITU.

>> Thank you, Guy, and ladies and gentlemen here in the room and online. Pleasure to welcome you to ITU. Thank you for joining us on this special occasion marking 10 years of WHO Make Listening Safe initiative. You can count on ITU's continued support and digital health engages a wide variety of partner ensuring that we build on all necessary expertise.

Our longstanding partnership with WHO is fundamental and bringing together our expert communities, ITU and WHO create a solid technical foundation for digital health innovation.

Our work on safe listening has grown in scope from using music players to entertainment venues and with new standards published earlier this year, video game play and eSports.

We have always focused on practical solutions, able to achieve global impact.

And we have always been guided by thorough consultations. I thank everyone here today and everyone involved over the past 10 years. Time flies, really, for leading the change we want to see. Today is another key opportunity to assess where we stand with policy, standards and global awareness.

We will discuss opportunities to refine our strategies for integrating safe listening in industry practices.

We will look to strengthen the partnership that is so important to this work.

I wish you every success.

I also look forward to seeing many of you next week at our AI for Good Global Summit. Together with WHO and WIPO, we support a comprehensive program of work to ensure AI solutions in health are safe, effective and ethical.

Whether it is safe listening, telehealth or artificial intelligence, digital technologies hold so much promise to support better health for everyone everywhere.

And that is exactly why ITO and WHO bring all stakeholders together to help clarify their perspective roles and the respective roles and support required from WHO and ITU and many other members speaking of ITU we have 1,000 private sector entities in the ITU make us a unique agency in the UN system and Member States, 194 Member States make us a unique technology standards body.

We have 160 years of experience in building consensus on technical standards and we started with telegraph in 1865.

We know how to develop that consensus between the public and private partners to bring key innovation to global scale. I look forward to many more years of bringing this value to all stakeholders in safe listening. Thank you.

>> AUDIENCE: [Applause].

>> Guy FONES: Thank you. Excellent. It has been a long road. 10 years of successes and vision and looking forward to scoping our next phase together with guidance from you. Will you be guiding us today and the next couple days exactly how we can enhance impact and collaboration and full force of WHO behind this initiative. Let's reflect a bit what the road has been until now how the initiative started what has happened so far amazing impact and stakeholder engagement and footprint in countries and looking at that inviting Shelly and followed by Simao Campos to give that from WHO and ITU retrospectively. We don't have to introduce Shelly the champion lead for WHO hearing care and longstanding champion driving globally and followed by Simao focus group on AI for health and long-time collaborator with ear and hearing work programs. Shelly?

>> SHELLY CHADHA: Thank you, guy. Welcome, everybody. As we mark the 10th year of this initiative, I thought it was an opportune moment to share with you the dream that I have. The dream of a world, the dream of a world where all people young or old respect hearing and care for the world and a world where all music makers understand the relevance of safe listening and implement it as part of their work. A world where lovers of music understand that louder is not better.

A world where all devices whether they are used for listening, for playing, for experiencing virtual reality and -- and beyond, they provide and promote safe listening features and safe listening messages.

The world of my dream a place where all people can and do monitor their sound dose not just on phone but across devices and situations regularly and care for their ears. This is the dream that those in WHO have dared to dream. It was this, this dream that drove us to explore this area ten years back. When we did, we came to two realizations.

First realization: The stakes are high.

The stakes are high because we estimated that over a billion people, young people are risking unknowingly risking their hearing every day simply by doing something that they love to do.

What they are risking is -- is permanent. Why this is also a challenge from a public health perspective is because we already have nearly half a billion people who require hearing care and currently we are unable to meet even 20% of those hearing care needs. What? How are we going to deal with this avalanche that is coming our way? The stakes are high.

The other realization we had was there was little awareness about the risks and the fact that these risks can be mitigated. People don't have to lose their hearing doing something they enjoy doing.

We can mitigate that risk. So we worked to make the invisible visible and launched the Make Listening Safe initiative in 2015 with a good, warm welcome, I would say. People could relate to it. People could relate to it because it was something they thought about themselves. Is this ringing a problem that has happened in my ear? Does my child listen to too much loud music? Will it be okay for his ears? People could relate to it and therefore people welcomed it. Almost legitimately we found our International Communication Union and joined hands with international telecommunications Union to Make Listening Safe and we became a team. Over the past 10 years, we

have worked to create a plethora of awareness, advocacy, materials, tools, flyers, videos launching -- well, making publications and academic journals and with podcasts and with news releases and press releases.

We have made some resources available for all of our partners to raise awareness with and undertake advocacy with. We have undertaken a number of campaigns, campaigns on world hearing day to raise awareness about this issue.

Campaigns using our champions and ambassadors such as Ricky case, a Grammy award winning musician who is with us today online as well.

Also, with champions such as Brian Adams and Melala lending their voice to this cause.

Also, campaigns through video campaigns and joining hands again with ITU for their 160th anniversary will once again highlight importance of safe listening and hearing protection. Over the past 10 years, we have created technical standards to address three of what we saw were most common causes or risk factors that could damage hearing.

So we created the global standard for safe listening devices and systems in -- which was launched in 2019 and a global standard for safe listening venues and events as well as just recently launched the global standard for safe listening video game play and eSports.

This is work we have done over the past 10 years.

But, if I summarize the past 10 years, very briefly I would say that what we have done is we have laid the foundation.

We have laid the foundation for a beautiful big building and laid the foundation for a beautiful future, but we yet have to create it.

That is our charge today, to create and to work on that vision of the future we want to see come alive by 2035 and then

2045 and then hopefully our work will be concluded at some point.

We can do this only through our continued collaborative effort and our shared vision.

We are delighted to have you collaborate with us and share our vision, our vision of a world where all people can keep listening to whatever it is that they wish to listen to, that beautiful piece of music from the 80s or 90s or gaming sounds of video game play or whatever it is that they wish to listen to but without putting their hearing at risk.

So once again, I thank you for being here and for joining hands with us.

I look forward to continuing to work with you to Make Listening Safe. Thank you.

>> AUDIENCE: [Applause].

>> Bilel, please.

>> Thank you very much. Always a pleasure working with you on this topic. I apologize. I have to go to another event across the street on digital global collaboration another collaboration we have with WHO and others in this case for the vaccination certificates that is going on, digital platforms. I will be back to join you later on. Thank you very much.

>> Now over to Simao.

>> SIMAO CAMPOS: Thank you and good morning to you. I didn't have the opportunity to say hi as I was running with the less troubles to have this meeting started.

Thank you very much. Thank you, Guy, and nice to meet you for introducing and Shelly for bringing travel to us now in 2015 and now and have been working for 10 years for this very I would say even noble cause, I think is a very important activity that we had. So I will just go over a little bit the standards.

Shelly had this very motivational part. Now I will go more to the boring side of things, a little bit on the technical aspects.

Before that, to make sure you know where you are, ITU, what is ITU? It is a sister organization with WHO, who WHO is a specialized agency for health and ITU is ICT International Communication Union for technology, and we are celebrating 160 years this year starting in 1865 with the telegraph and the information and communication technologies and evolution overtime and radio revolution and television revolution and digitalization of networks and spread of communications all over the world. I have been in that journey. Today we have 194 Member States.

And as Bilel mentioned about 1,000 private sector member organizations joining us industry and network providers and many types. We have academic organizations as well that are members of ITU. About 106 are members. You have an idea who is working in ITU. We work in a slightly different way than other organizations where most of the technical standards and technical content of the standards are directly contributed by the members.

In this case, the private sector contributing. I have here just a small sample of names. You can see that there is diversity of members.

One example is, let's say, we have -- let's say Meta, Google are the big names that we all know.

Then big people in the telecom world that are a part of our membership and then we have entities representing users like global eSports federation that is a member. And in the process, I mentioned this, this was an important contribution in the process of generating this standard age. ITU, we call it in ITU for video game playing and eSports.

Then we also open that to new members to contribute the process to do the workshop process and opening the door for other organizations.

Cédric is here, for example, representing one of them. To represent the gaming community to give that user perspective. I think we try to be inclusive to the market and things we produce.

We have been fully and supportive of WHO for that, that brought this very important medical or health perspective and background and all of the science behind and all of the methods.

I think with that we could develop interesting and solid suite of standards that start with H.870 that we approved in 2018. So, actually, the journey started in October, 2017 with first consultation meeting we started and this is a timeline and a few milestones are missing there. I think I captured most of them and will say when you start the first addition of H.870 that was published ITU WHN publications and toolkit to promote adoption of that that was more towards now adoption. And how to promote that. Then we -- we identified the number of things that could be improved in H.870. We came with a second addition, and we worked on a (?) Meaning a way of testing that implementation can be meeting all of the requirements and options and which options they meet of the standards.

We took on work WHO led on venues and ITU publication for safe listening venues as a technical paper also H.872 gaming and eSports published last year as WHO publication and I believe in May this year. This is a little bit of a timeline how we got here.

I will not get into too many details of H.870. You are probably aware.

Basically, it is what I would say about this is it was a transition from a simple level cap-based specification that was

a particular mandate within Europe to go towards dosage measurement and sound exposure measurement where we leaned heavily on work that Senilac108X had developed and adopted that as the core of specification of H.870 and remained as core aspect for these under -- the derivative works you have done, and I mentioned the listening -- safe listening venues and H.8724 video game playing and eSports. We developed peace apps, and it is not part of 9 safe listening so-to-speak initiative. It is a slightly different application scope. You also have that derivative standard that was produced as H.871. This was a core. This is the basis. Basically, you have two molds. One is exactly as in the CENELEC 108 ICT specification with 1.6 Pascal hours per 7 days.

We get an alternative mode that people would say since users, people that like to protect their hearing and more conservatively or for children, for example.

Where you have lower exposure mode.

This is a key element and another fundamental is communication aspect and this is not part of CENELEC approach that is technical and how to approach and when to communicate events where good -- that should trigger communication to users and some device how that communication should be and think this was a part of H.870.

So basically so what we have here on the table was the -- the standards that had same level as specification H.870 and each is a dual publication in ITU we call it H.870 and WHO has a slightly more user friendly name and both are free publications and all of the ITU standards are free to download, and we don't have a pay mode in our system.

It is all specifications that could be used for free. And some people ask why two publications? It is like presentations we had here.

I'm a little more dry to the bone and to the technical part and it is more boring.

Then there is also something that is more user friendly to communication the message. Two different publics, but technical content of both is the same.

That is the most important part, and we are saying same thing different ways to different publics.

The other thing we identified as a need was to communicate with the public how to. Then we will address certain sectors that could help with adoption of the standard and developed this toolkit back in 2019 for regional standard.

And I guess that I think we should think the same way for the video gaming and the eSports specification and something like design toolkit to develop and spread the word and adopt. I think this is work that could be done.

A lot of -- we understand the technical part, I think. A lot of it now has to go with advocacy, awareness and tools to facilitate adoption.

So, I guess, one of the things we have to invest better is in the program for compliance and testing specification for H.870 and H.872. I think that this is an important area and also get feedback from industry as they try to implement and see ways that different specifications could be improved.

There is work going on also in an area that had to do with how to go from additional device to an analog device when the sound is producing to the ears and how to map that gain and the levels.

So this idea of having a headphone sensitivity registered to develop and something we are working on standards end as well.

All right. So I think I will -- yeah. I already spoke about the toolkit.

This is some of the elements it contains.

Guidance for safe listening venues, these are the elements that it addresses.

In particular, goals is not only technical aspects of device but talks about general sound levels and acoustics and needs to have rest zones and use of earplugs and information and announcements.

All that is elements that would guide people running shows and showing them how to do that venue more friendly and more safe for -- from listening perspective and why keeping enjoyment and all that. That is important to bring people to the venues. Finally, latest adventure so-to-speak and latest product that explores aspects of sound exposure limits as expected but also monitoring and alerts.

Need for user-centric controls and behavioral guidance and some expected device and software features.

As I mentioned, we also had these kind of side product not in the mainstream of safe listening work, which was dealing with personal sound amplification product and something we gained creating the community with expertise and brought many people with interest in this area. Mark in particular who has been a champion there helping us.

We applied the same principles to a field where people were at risk.

It wasn't exactly safe listening in context of the playing devices for music. But it is other uses that are being. So it is a kind of a special area that we felt deserved some guidance for the industry. So that is what we did. We are also in the work of promoting that.

All right. So as -- it brings me to my last slide.

I think that one of the most important things now that technology or technical experts are well understood behind what we have. Really, advocacy is important.

I think that this is one of the key reasons why we bring you guys here is to keep that word being spread and promoting this and finding best ways we can spread the ideas and concepts to all players. In particular, governments, industry and Civil Society and include, of course, users of the devices and people enjoying and listening to music to -- and in their daily lives. And the raising of awareness for safe listening.

All right. That is what I had. Thank you very much.

>> AUDIENCE: [Applause].

>> MR. FONES. Thank you, important to highlight 10 years of action that are underpinned constantly by research, science, evidence based norms and guidance is extremely important. That also has to move from technical resource toolkits to implementation models.

I think this is the community that we have here and online and community of stakeholders ensure those technical products resonate and have contextual needs from the ground up and have your insights that can shape those technical toolkits into feasibility and implementation on the ground.

Let's go to that side of the -- of the partnership, our stakeholders.

Let's have that meet and greet. To -- for many of you will be reconnecting. Many partners who have been on this road for 10 years and for myself and others a chance to meet you and where you have come from and what is your experience so far. We will have a round introductions and hopefully can make it quick and to the point and starting with those online and bringing them virtually and quickly into the room and ask you to present yourself and organization and maybe as an icebreaker you

can tell us how you connected at what level in the 10 years since 2015 as I'm sure many have been with the initiative since 2015 and others joined through the process.

Let us know how long you have engaged and been collaborating here.

I will start with those virtually and starting with Ricky and when you finish, give the floor to the next one you see there. I can't see you online and if we miss anyone we will come back to that one and move to those in the room. Focus quick, hopefully.

Ricky, over to you. You will start.

>> Ricky: Thank you so much. I was supposed to be there in person, and fortunately I'm online and Ricky Cage and musician and United Nations goodwill ambassador, and I have been with Make Listening Safe for 6 or 7 years. And my initiation has been strong, and I performed at launch of WHO recommendations for safe listening devices and curated a music festival in India. A large music festival in India in 2023 where -- you know, where I think it was the first music festival that actually implemented recommendations for concert venues. And best part of it, music festival went well and audience enjoyed sound and music, and it was a huge success. Next is Rob.

>> ROB FIKELBOOM: Thank you. I was there in the early days of the initiative and attended 2 or 3 of the meetings and developed strong contacts with people in the room in Geneva and online as well and not only in the safe listening initiative but all initiatives around hearing health globally. I will pass on to Edinborough University. Your name, sorry.

>> LAIN MCGREGOR. I do sound and listening and involved in a couple interviews over time for some documentation. I work on a -- we have an oralization suite and run lots of experiments

and try to match up what some designers are trying to achieve with what listeners are experiencing and look at technologies that allow you to listen at quieter levels and my personal dream for audio technology is I can reach over to something and turn the volume up and down and all that changes is volume and can hear it clearly as when it is really quiet as when it is -- listening to it very loud and has no effect on account for noise and where I would like to head and normally with that technology less pressure for volume to be control and basically be clarity control and that is my perspective. Anyway, who do I have next? Mr. Feraz?

>> I suggest we go to Aalborg University.

>> That is me. I have been working with headphones playback for 3D sound and took part in the ISO 11904 standardization work providing reference for waiting and correction functions from measurements and headphones for comparison with free field diffuse methods and was very excited to be invited to work on Make Listening Safe initiative and also I think Ricky and I participated jointly in 2019 or '20. And I'm also excited to help work on the safe listening for gaming, which is often by headphones. I do my part on it for live venues.

Although, that is not in particular my strong field but think this is an important initiative. I'm happy to see it has been recognized widely in our communities. Thank you. I should say I'm also a member of the audio engineering society where I'm Vice-Chair of the technical committee for hearing loss and hearing loss prevention and we host a conference every 3 years. We hosted it in Denmark last year and expect in this time we will probably host it in the US. Thank you.

>> Mr. FONES: Thank you, Dorte. I will suggest Grace Lin.

>> MS. LIN: Hello.

>> Please go ahead.

>> MS. LIN: I'm Grace and with Blucalm technology. I'm wearing our headset and during our developing process we found a lot of people are losing their hearing because of daily wearing headsets time increasingly.

We want to do headset and hardware always hardware that can show them SPL and also to protect their hearing by we have a world first AI power touchscreen base that can display real-time hearing health dashboard and want to have more support from WHO. We are founding -- we found a lot of materials from WHO and we gave a lot of help to make this kind of hardware.

Okay. Thank you.

>> MR. FONES: Mr. Reddy.

>> MR. REDDY: Hi. I'm happy to be in this meeting, and I have been involved with University of Auckland and work with colleagues here revolve around awareness programs for school-age children and university adolescence and also in the workplace space. Thank you. Cheers.

>> MR. FONES: Katiya Feder from Health Canada.

>> MS. FEDER: Hello. It is a pleasure to be here virtually. I have been involved with the Make Listening Safe initiative since 2016.

And I have attended personally since then. I was unable to come this year and research scientist with federal government of Canada and division non-ionizing radiation division health services is very much involved with personal listening device usage and safe usage for Canadians and how -- how we can make it safer. I have done a -- several studies on looking at personal listening device usage particularly among young people.

And so I'm also involved with the research protocol sub-committee and WHO with Adrian Fuente, who is the Chairperson. Yes. This has been a great initiative and lovely to see everything laid out and all of the steps that have been taken in the last several years and how it has come to this point.

With that, I will end my introduction.

>> MR. FONES: Thank you. And going back to Karl Brooks from Sony. Karl?

>> Karl: Hi. Good morning, everyone. Can you hear me okay?

>> MR. FONES: Yes. Thank you.

>> MR. BROOKES: Thank you. I am looking forward to the next few days working with you all on this topic. Thank you very much.

>> MR. FONES: (?) From Sony also.

>> MR. YAMAZAKI: Can you hear me?

>> MR. FONES: Yes.

>> MR. YAMAZAKI: I am happy to join this meeting. Thank you.

>> MR. FONES: Sayaka from Sony.

>> Yes. I'm from Sony Corporation Japan and working for Sony headphones safe listening mode from 2022. It is a pleasure to be in this meeting. Thank you.

>> MR. FONES: Thank you. Mr. Moses Serwadda.

>> MR. SERWADDA: Hello.

>> MR. FONES: Hello. Please go ahead.

>> MR. SERWADDA: Thank you so much. I'm happy to be participating in this meeting. Okay.

And I have been participating in the Make Listening Safe initiative since the -- since 2016. It has been a life to me and has been part of my life, why?

Because it is the initiative that defines who I am. I am a person who lost my hearing because I was using hearing devices. And it is something that has given me the opportunity to raise awareness strongly about it, especially to the young people and through the Uganda Federation of the hard of hearing and other platforms, we have been able to empower more people with knowledge about the Make Listening Safe initiative. I'm always happy to refer to my lived experience as a person living with hearing loss. And that one who experienced what the Make Listening Safe is trying to send the message that is nonfiction. We are here to justify the importance of the Make Listening Safe initiative.

Many people are struggling and others can't express themselves properly. They are struggling so we need to be very assertive and clear when raising this awareness.

This initiative has been part of me and is still part of me for the next 10, 15, 20 or 30 years.

Thank you.

>> MR. FONES: Thank you. Corey from University of Colorado, please.

>> MR. PORTNUFF: I'm a clinical audiologist and clinical professor in University of Colorado School of Medicine, and I have been involved with Make Listening Safe initiative since 2019 with my first trip to Geneva in 2020 and excited to be here with you all. And sorry I can't be there with you in person. I'm sure it is an exciting time here celebrating these 20 years.

>> MR. FONES: Thank you.

>> MR. DIGBY: I have been a sound mixer for 30 years and doctoral student at University of Derby. -- demonstrating a fair loudness measurement solution to allow engineers to easily and reliably Make Listening Safe levels and is my pleasure to be allowed to attend this meeting. Thank you.

>> MR. FONES: Mr. Wiggins.

>> MR. WIGGINS: Hello, everybody. I'm in the UK and hearing scientist and pleasure to be involved in Make Listening Safe initiative since 2017 was my first meeting. I contributed a bit to the personal listening systems standard and then was more heavily involved in development of standards and venues and events and subsequent implementation efforts and standard. Thank you.

>> MR. FONES: Thank you. I would like to ask (?) From WHO.

>> Good morning, everyone. Pleasure to be here and thanks for the invitation. I'm currently a consultant for ear hearing eye care in (?) But I have been engaged in ear hearing care for a long time now and have not been actively involved with the safe hearing initiative actively. I'm more on the advocacy clinical perspective of things and do much advocacy and community engagement and policy engagement, and I'm happy to be here and contribute as much as possible. Thank you. Over to you.

>> MR. FONES: Thank you, Ms. Melendez from (?)

>> MS. MELENDEZ: Okay. Good morning to you all. I'm Dr. Melendez from Panama and exciting to be in the meeting even though the distance. I have been involved with hearing loss and safe listening for quite a long time and was past coordinator with Mark at safe listening work group at that time now workstream and pleasure to be here and celebrating all good things that have been done.

>> MR. FONES: Thank you, Ms. Chander.

>> Thank you. I have been part of the initiative since 2019 now and with the WHO group for hearing and ear care at headquarters promoting their initiative and that is me and back you to.

>> Thank you. Peter Mulas, WHO.
You are muted, Peter.

>> MR. MULAS: There we go. I work in the hearing care program on very topic Make Listening Safe and unfortunate I can't be with you and appreciative to be part of this and my first meeting I attended was 2023. And I joined WHO on this topic in late 2022. I have been working on it the last three years and thanks again for having me and look forward to work we are about to start on.

>> MR. FONES: Thank you, Peter. Did round of remote and we can start in the room and start here with Lydia and then go Mark and then Asan and Len Lauren. Okay. Please, go ahead, Lydia.

>> Thank you. European Federation hard of hearing people and proud to say actually I am we have been involved from the beginning 2015 when we initiated the launch and proud what we have worked on and (?) Make Listening Safe work stream. Thank you.

>> Hello. My name is Mark Lawrence and representing European association of hearing aid professionals and have been there from the beginning in 2015 and in fact it wasn't a collaboration between European federation of hard of hearing people and European association of hard of hearing professionals to look for safety and safety on sound and hearing and what inspired us to come together and work on this and have been part of the co-chair of Make Listening Safe workstream together from the beginning.

What inspired me extra was we did a project with our students on how hearing protection can help you and be beneficial and also has downsides we have to fix and solve. It was an inspiration for this work. Thank you.

>> Hi. I'm Hayatee and here at WHO in Geneva and work in the department of communications and support all technical units around media, various launches, campaigns and have been working with Shelly for over 5 years now. Thanks.

>> Okay. Hi. Everyone. I'm Lauren Dillard and with WHO hearing ear care program and first meeting I attended was the last meeting in 2023 and really happy to be back to celebrate 10 years.

>> Hello, everyone. My name is Carolina technical officer at hearing care program and from WHO perspective and what can I say? Pleasure to work in a campaign for prevention of hearing loss based on enjoying hearing for life.

>> Good morning. I'm Sarah grin associate professor at central Michigan university and proud this is my first Make Listening Safe and thank you for the invitation and I'm excited to learn and listen and hopefully collaborate. Thank you.

>> Hello. I'm Michael Santucci and an audiologist and started to work in the music industry with professionals. When I was invited to attend the first meeting in 2015 I have been coming since the beginning and think they said how many times have you been here? This is I think my 13th badge I have come here for and happy to be here and be around and part of this wonderful movement. Thank you.

>> Good morning. I'm Colleen and from University of Texas at Dallas and been coming here since 2017 participating with the development of the research protocol and involved in bring information with initiative and advocacy back to groups in the US.

>> Good morning, everybody. I'm Rick and professor of University of Michigan School of Public Health directing nationwide Apple hearing study in US and been coming pretty

close to the start and pleasure to be back and see familiar faces and also meet new folks.

>> I'm new and in contrast I work for a privately organization called speck safers whose purpose is to change lives to better access for sight and hearing and look after communications for UK and Holland and key thing for us is awareness for hearing protection and sorry for the last year. I have been working with Rob Shepherd on listen for life program.

>> My name is (?) And from University of Tokyo in Japan and rapporteur on digital health and editor of H.870 and working with Shelly for -- since 2015, and I'm very happy. It is -- the 10 years has passed so fast. I'm just very amazed and impressed and currently working on other documents in safe listening, Make Listening Safe initiative as well as I -- we are also trying to develop a standard for safe viewing now with WHO as well. It would be great to continue our collaboration. Thank you.

>> Hello. I'm Sara and started to work here in September 2016. It was the first time as a consultant in the field of communication because it was presented, and this is a major thing of understanding how to present this. Plus, in advocacy and together with my colleague that will present after me, we have been working on some empirical studies on understanding barriers and challenges in various targeted population of the program. Thank you.

>> Good morning. I'm Nicola and senior researcher at University of Lucerne. Yes. I have been working at this initiative since 2016 and Sara recently just mentioned. I have been very much involved in all of the research activities related to understanding how to better communication safe listening features across contexts.

>> Hello. I'm Rafael and here with federal offices of public health in Switzerland in Burne and don't know when I have

been with the group in 2018 and started mainly with standard for venues and also what I'm responsible at the -- at the office here in Switzerland. I'm responsible for the legislation for safe sound levels in venues, concerts and things. Thank you.

>> Good morning, everybody. I'm Tatiana. I head the global video game coalition GBC, and we are a global association of national video game associations focused on intersection of video games and digital well-being.

The first time I was involved with Make Listening Safe initiative was in June 2023. Just over 2 years ago.

I have come to every consultation ever since. Thank you so much for having me.

>> Good morning. Good evening. Good afternoon. I'm representing video game industry in Europe part of the global video games coalition and head of eSports and been involved in eSports and more generally in video games industry for close to 20 years now and motivates me to be here and be bridge of messenger between industry and international organizations. You know what they say about messengers. Don't shoot me, please.

And yeah. The first -- my first connection with Make Listening Safe initiative was for the online workshop in 2021 if I'm not mistaken and I have been more involved since the start of the video game play and eSports standard. Thank you for having me.

>> My name is Teresa.

>> I will translate for her.

>> She is the coordinator at (?) Association of cochlear implant people in Spain. 16 years she has been president of (?). She has been involved here since the very beginning. Trying to change from Spain the vision of the hearing loss inside governments and schools and communities around Spain.

We have translated many documents from The Who. They have been translated to Spanish and put inside of the community and educational community and also to the Latin Community.

That is all. We continue forward. I'm Antonio and piano professor and concert pianist and come here also with my dear colleague from (?) As well. Thanks for having us.

>> Good morning, everyone. I'm in Montréal, Canada and working 25 years on inner ear technologies and developing new devices you wear constantly, and you may have seen what we call fit testing of hearing predictors, for example, and these are things that I contributed to like I did to Make Listening Safe initiative since 2016 including drafting of the H.870 standard. I'm a big believer in inner ear dosimetry and leading work as well under the umbrella of American national standard institute and I may have time to present a little bit what we are doing there together with Michael and lots of talented colleagues as well as on ITU question 2 that was just mentioned a couple minutes ago on sources close to the ear and thanks very much and glad to be back here.

>> Hi. I'm Brian Schmidt and last 30 years video game composer and sound designer and working on all sorts of console and arcade games and audio technologist and spent 10 years on Xbox team helping to design audio architecture for first generations of Xbox and realizing compared to everybody here. I'm a total Noob having first come here in 2023. However, since then, I think this is my fifth trip to Geneva and found passion that everybody has for this topic and issue to be extremely contagious.

I'm very committed to trying to help in whatever way I can. Thank you.

>> Hello. I'm Thomas Lund and with Working Group 3 under the European commission working in this area and research lead

at the professional monitoring company. Cenelec and Jenelec.
Thank you.

>> Good morning I'm Jenna and at Meyer sound and work on acoustic systems and performance bases and been involved since 2019 participating in standard for venues and events.

>> I'm Cuba and lead hearing health team at Apple responsible for dose symmetry tests hearing tests and protection and aid and pleasure to be here and sitting in same row as first professor from 15 years ago down there and my wife next to me here and Michael Santucci and Rick I have known and Colleen over 15 years or so. Surrounded by really good people. The passion is really alive in this room. I'm happy to be back here every time. I'm reminded by -- about that every time I step foot here.

Thank you for that.

>> Good morning, everyone. I'm Raj with Apple and product safety engineer and been involved with Make Listening Safe initiative for 10 or 11 years since its concept and very happy to be here and pleasure to see everyone. It has been a long time. Thank you.

>> Good morning. Andress is my name and audiologist in Sweden and part of the MLS group since 2023. I am working with an online hearing loss prevention program in Sweden we developed and evaluated, and I'm super humble and happy to be here.

>> I'm Ian Hoffman and associate professor of acoustics at Peabody Institute at Johns Hopkins University and architect and teach students and teachers recording safe behaviors and concerns of the subject primarily thinking about research and musician sound exposure and safety around musicians experiences and architecture side concerned about room design and impact of spaces and venues on exposure and noise control and of these things and happy to be here thinking about the next 10 years

since 2023 Shelly mentioned 2023 and excuse me. 2035 and 2045 and when does this finally run its course?

I have great concern that the world gets noisier and noisier with every year and every development and I'm an advocate for making sure the world doesn't get noisier and noisier and until it stops doing that we have work to do.

>> Morning, everyone. I'm Adam Hill and associate professor of acoustics at Darby in UK and worked 20 plus years doing big American music festivals. And in parallel, I'm chair of audio engineering society technical committee acoustics and sound re-enforcement and lead healthy ears limited initiative, which is aligned with WHO venues and events safe listening standards educational aspect launched in March and research aspect launching in September and hoping to get you lovely people involved in that. That is me.

>> I'm freelance sound engineer and represent German sound engineering association VDT and haven't been involved with this for so long and fairly in the Noob category orbiting this project since 2021 I think and glad to be here and busy being a chairman of a new sound engineering qualification in Germany. We have been very active getting tools that come from safe listening venues and events standards in education and excited to continue on that path. Thank you.

>> Hi, everybody. I'm Kelly and professor and audiologist and research scientist and working with Make Listening Safe program since inception and for 10 years now.

In that and those roles being part of the research protocols and team you have heard people speak about as well as advocate for people with hearing loss and educator and training involving students in the next generation. Thanks.

>> Good morning. Retired 30 years at US CDC center for disease control prevention working on occupational hearing loss

prevention and think I have been here since the beginning as well.

As of last year, I'm helping Katya and Lydia on Make Listening Safe workstream. Thank you.

>> Good morning, everyone. I'm Adrian and audiologist and associate professor University of Montréal in Canada and board member of international society of audiology.

I don't really remember since when I have been participating in this initiative. I think since 2016, probably 2017 and think coordinating the research group that you have heard already a couple of times and happy to be here.

>> Morning. I'm Adriana and from the University of Montréal. And with the Brazil team and think my first -- my first meeting was 2019 happy to be here.

>> Hi. My name is Carissa. And I'm from the United States coming from Baylor College of Medicine in Houston, Texas and 4th year medical student applying to child neurology residency this fall and excited and thankful to be back. My first meeting was in 2023 and at that meeting and since I have represented the medical trainee stakeholder group I feel is very important towards being prepared to treat patients for safe listening, and, again, since I have been involved in several initiatives and publications regarding pediatric neurology and safe listening medical education curriculum-based things as well and presenting on behalf of medical student and resident coalition at occupational health summit in Washington DC next week.

>> Hello. I'm Taya Collins in HQ in Geneva WHO. This is my first meeting with this community and have to say I'm really impressed hearing mostly something that I experience personally and lots of people I know about.

And I have to say it is very personal for me. At the same time, it gives me hope that this kind of people representing pretty much all areas that effect hearing come together with some solutions. Then you clearly have been working for a decade. I really want to thank you for this work. I'm really happy to learn from all of you. Thank you.

>> Good morning. Good morning, everybody. I'm a research scientist and work at WHO headquarters working in adolescent and young adult health team. I manage and lead a number of screening programs for young people.

Looking at hearing screening amongst a number of other conditions, and I'm really excited to be here and very interesting to hear of your work and collaborations that are ongoing and thanks so much.

>> Good morning. I'm Anita and from the University of Hungary from Budapest and first time I'm here and thank you so much for the invitation.

I'm working as a laryngologist and clinical audiologist and professor at a university and working in good collaboration with a technological university and would like to show you various slides and proposals in the snapshots part.

If you would like to see our results, and thank you very much to join you.

>> Hello. My name is Peter and neurologist and psychiatrist south of Germany and chair of team research initiative and contacted WHO about 1 year ago to refine diagnosis of (?) In ICD-11. At that time, we got in contact with Shelly. We were invited also to contribute to this initiative and especially representing perspective of (?) Patients.

>> Hello. I'm also associated with University of Gainsbourg, and I was in the same meeting and Shelly and

Carolina kindly invited us to the meeting, and it is my first time here. Thanks a lot. Happy to be here, and I'm a professor for digital health at university of applied science in Senegal in Switzerland and teach students how to develop digital tools for sure and guidelines we are developing here and something that also needs to be transferred to the next generation. Thanks a lot.

>> Good morning, leagues. I'm working at ITU and colleague for over 20 years. And recently I got involved with safe standard initiative and collaboration with WHO and currently responsible for Study Group 21 that develop standards and one of the fields of development of study 21 is digital health.

You heard before from Dr. Camori who is responsible for question 2 related to standard development and will come to Study Group 21 one way or the other, and I'm happy to be here to support future standard development in collaboration with WHO and have to apologize.

I won't be able to be with you all the time this week and very heavy shadow of (?) Meeting this week in Geneva in addition to this meeting. And question 2, and any time I can, I will be here. And if you wish to count on me for anything, please do so.

Simone is there, and I will support Simone as well. Thank you.

>> Good morning. I am Malita Moore and rehabilitation physician, sports medicine, and traumatic brain injury specialist based in Washington DC and vice president of global eSports federation taking care of traditional athletes and professional eSports athletes and third in-person meeting and here for starting safe listening for video game play and grateful to be here and fresh off the plane.

If I'm a little dragging, I will be better tomorrow. Thank you very much.

>> Hi. I am Ravine and helping out the WHO team with the meeting. And in my daily life, I work in the field in India for persons with disabilities, both children and adults, and we welcome hearing as well. Thank you.

>> Mr. Fones: I think Simone and Shelly we have gone through the participants.

How impressive and so exciting and such a powerful demonstration of multi-stakeholders initiatives and all society responses are really the foundation or are becoming DNA for WHO. I'm -- I'm acknowledging that we have understood the power of multistakeholder initiatives bringing forth powerful expertise of partners conceptual institutions and developing multistakeholder initiatives since the start and this is the power combining expertise from across the board and researchers collaboratives Civil Society and private sector importantly. I note expertise from those with lived experiences, which is so important to shape our contextual equity based relevant programs and services so on and so forth and excited to see power of technical expertise in this room and virtual room and in this initiative and looking forward to bringing forth that expertise to shape processes to connect value chain from commitment and happy to see political commitment that was there 10 years ago. And commitment to technical resources, evidence-based scientific technical resources and bridge to advocacy promotion and implementation on the ground and efforts will be valuable from across the chain and looking forward to discussion and have to jump off a bit and will join you in the next session and handing it to Shelly to continue with that. Thanks so much.

>> Thank you. Thank you, guy. Thank you, everybody for the round of introductions.

And we will take a break now. Before we go on the break, I want to thank, especially Ricky. Thank you for joining us.

We know you have a launch of a new album around the corner and wish you all the very best for it and good preparations. We hope that you will be here with us next time and that your next launch doesn't coincide with the safe listening meeting and thanks very much for being online for this part and please stay with us as long as you can.

Of course, thanks to all virtual and in-person participants for joining.

Before we break up, some for coffee and some instructions. We will organize ourselves immediately after this in the room for a group photo.

We will have a group photo here.

We will take the group photo.

After that, you will have the opportunity to have some coffee outside. Following this, we will have a demonstration of the snapshots we promised in the agenda. We have six tables outside.

If you look at your -- your badge, you should have a small sticker there. It has a color. Do you have it?

That is the color of the -- of the table that you should start in.

We will guide you, of course, there.

You should start there and one by one we will go through all of six stations, which are going to be set up there. You can look at some of the successes that we are showcasing in this and subsequently also in the panel session.

So with that, let's all come together for the photograph. We will be back here and have the coffee break until about 10:50 or so. We will then guide you to the stations.

Come back here at 11:45.

>> People in remote please turn on cameras if you would like to be part of the picture.

Turn on cameras.

Thank you.

>> [Coffee break].

>> Welcome to another episode of safe listening success where we spot the trailblazers shaping a sound future. Now here is your host award winning expert with 20 years experience leading international organizations bringing insight, passion and a truly global perspective to every conversation, Rana Sadani.

>> Hello. Welcome. Thank you to all for joining us here whether in person or online for this important event.

We are here to share real action and real stories to explore the personal and organizational motivation behind successful efforts to promote safe listening. Not yet.

This is the beauty of shows. You don't know what will happen. Improvise. It is so authentic.

Thank you for your flexibility if this happens again. Across sectors and individuals, teams are making change happen. Today, we will hear how. During our discussion, we will show that progress is possible, impactful, and often begins with initiatives of a single person or a small group. This, as you have figured it out already, will not be a typical panel discussion. This is more like a talk show. Feel free to engage and especially if you are online. Put your comments and your thoughts and your questions in the chat. We will try to address them all as much as possible.

One by one, I will invite speakers.

Each speaker will join me here to tell me their stories. We will have 30 minutes to hear from you and the room and online.

Let's dive in.

Our first speaker, he is from the Federal office of public health, he is a biologist, musician, lead regulatory expert behind Switzerland sound exposure loss. When not shaping public health policies he is writing and producing music.

Please join me to welcome Raphael Elmiger.

>> Rana: Good. So, Raphael, you are a biologist, musician, a lead regulatory voice. Tell us how all these dreams come together. Tell us your story. How did you get this? How did you reach this?

>> I think my --

>> Let me do it.

>> So I think my mixture of interests and backgrounds actually work quite well. Because as a musician, I was pretty much part of the problem. I played in loud bands. I practice always with my guitar and ear in left side of the basement and left ear is okay but not same as the right here and guess had impact, and I made punk music, which was loud, and I enjoyed concerts and went to a lot. My first big concert was a band Oasis that was actually here in Geneva. They were so incredibly loud that I couldn't enjoy it. It was like painful. It was like -- I really was looking forward to the songs, and all I could hear was boom. That was, I think, the first time I actually realized this is not the idea that this is meant to be translated to the audience.

As a biologist, I'm interested in what is happening in like biological processes and so that is how it came together.

>> As a lead regulatory person, you feel that you spend so much time composing and playing music. And once it is delivered, it is not the way you imagined it for the public; right?

>> Yeah.

>> You said I will take things into hands and change regulations.

>> It kind of happened by accident that I ended up with the office. I was always annoyed when I played myself that when you had a sound engineer or knew it sounded horrible and you worked so long on these songs and knew how you wanted them to sound. Then the audience came and you knew people in the audience came you to and said, I didn't hear the guitar or singing and just loud drums and I think that was like a bit -- yeah. Sad to see it is not how I wanted to translate the music. I composed it.

>> Thank you. That was so inspirational. Please join your seats and give me that.

>> AUDIENCE: [Applause].

>> So our second speaker is a pioneer in game audio with over 35 years in composing and designing sound for more than 140 games.

1-4-0 games. Creator of game sound con and key contributor to global standard for safe listening in global ePlay and eSports.

Please welcome Brian Schmidt.

>> Yeah. Next speaker we will -- for next speaker we will move to belly dancing.

So Brian, yesterday -- can you hear me? Can you hear me? So yesterday when I was speaking with you, you told me a very personal and sad story. You expressed your motivation why you went into this field.

Would you mind sharing it here with our colleagues?

>> Sure. I got called or e-mailed randomly by Peter at WHO a couple years ago to help understand video game systems and so on and watched my father over the last 6 years of his life slowly go deaf. He was a music educator his whole life and

musician and French horn player and band director and spent a lot of time in not very well acoustically treated rooms. And so seeing the impact that hearing loss had on him, all of the things we all know about so much, the growing isolation and the loss of cognitive function and so on I think was for that reason when Shelly and Peter reached out and, yeah. I want to be part of this.

>> Does he know how much you are doing and does he know what you are doing?

>> I wish he did. He passed about 10 years ago, yeah.

>> I'm sure he is watching you from outside and up and he is very proud of you as we all are. Thank you, Brian. Please join your seat.

>> Thank you.

>> Thank you.

>> Our third speaker is a spokesperson and counsel for the global video game coalition. She is an international trade and regulatory specialist and driving force behind safe listening standard for video and game play.

Please join me in welcoming the one and only female but a strong and powerful female panelist, Ms. Tatjana Sachse.

So you lead a coalition. Tell us how you do that and what impact you can do. How -- is there resistance into your role and how do you coordinate all this work with WHO and IT?

>> No. Thank you so much, Rana. Thank you, everybody, for having me.

My role in Geneva is relatively new. The GVC, the global video game coalition was created 2 years ago with purpose of focusing on issues related to digital well-being and video games.

We realize the area is not addressed on a systematic global issue in industry and saw this on a global level and in Geneva.

Why Geneva? You want impact or global impact you should engage with international organizations and UN bodies such as the World Health Organization. We also have a collaboration on UNICEF on educating adolescent girls and helping them to bring more experience with STEM through means of video games and hasn't been really resistance on part of industry. There has really been a recognition that this is the area that we want to engage in. The value is being in Geneva and speaking with stakeholders and seeing synergies and areas mutual to industry and organizations and safe listening of course was one of the areas.

>> Thank you, Tatjana. I'm sure everyone will want to hear more about this coalition. Please join your seat. Thank you.

>> Our 4th speaker is regulatory engineer at Apple and standard across Apple devices including iPhone, iPad, and Apple watches. Please join me in welcoming Raj Desai.

>> We have all this?

>> We have all them who can decide who dances better, you or me. What do you think? No. End of the session.

>> After dinner private maybe after 2 or 3 drinks.

>> For me, 10. Raj, please tell us about Apple leadership and safe listening and tell us how you helped inspire this change.

>> Thank you. Leadership at Apple, it is an interesting place to work, first of all. When it comes to safe listening and standards development and product development, Apple believes in promoting and implementing these changes in concept early on, which means if we want to do it right, we need to design it early. And so for Apple, it means participating in standardizations.

You can't include these requirements if you don't understand them.

So that is why leadership at Apple, they believe in promoting standards development and participating in it. My role is I have been product safety for a billion years and have been in standards development my whole life at Apple. When this opportunity came to work on this new development, which was a completely different spin on how regulatory will handle safe listening, it was an exciting opportunity to be able to help influence and shape the standard that will impact our products and how consumers will listen to our devices.

>> Pretty impressive, and thank you, Raj. We will know more in the coming section. Please go to your seat. Thank you. Our fifth speaker is a senior event engineer, musician, and tuning specialist who worked in sound and event engineering since the 90s and now worked at Amadaos as a tuning specialist and trainer. Please join me in welcoming Jorn.

Jorn, yesterday you told me your passion is really to harmonize how musicians speak between each other using their instrument, and you told me you are capable of making the audience be afraid of breathing because they want to hear this low tune. Tell us more about that.

>> I found out I'm mostly interesting when mixing bands and bringing out musical interaction between musicians and at every moment how do people react and not interested in full wall of sound and totality of impact, and I don't hear well myself at certain levels and ability to discern music is lost after 100 decibels and mixing music softer to enjoy intricacies of musical interaction. What we all do is when you mix concert, you want to maximize impact that is clear and usually the only way is up. We always say work safety and always work away from the body. At the end of the song, all faders are up there, and you have to bring them down again, and that is one of my specialists is bringing faders back down.

I found out that depending on the musical genre, there is impact at high volumes and low volumes. And if you have solo acoustic guitar intro, you can blow it up Ray Regan style or make it so soft people will shut up at the beer stall. That has amazing dramatical impact. Showing people there is drama and emotion going up but also drama and emotion going down is kind of my thing.

>> That is amazing. Thank you so much. That is really very concrete. We as audience when we go to events and listen to music, we don't see all this work behind the screen. Thank you so much. Please go to your seat.

Now that everyone is seated, one last round of applause for us to start the second section. First question goes to Raphael. If someone here -- sorry. If someone here wanted to start promoting safe listening in their own context, what is 1 piece of advice you would give?

>> What I found that is really important is when you bring right people together in one table from beginning. In Switzerland in the beginning, it was more local authorities making controls and maybe fining them if they were too loud. And some venues didn't understand that standard yet.

So when I got involved, I started immediately to bring together organizers to venues with the local authorities and ask them to speak together before the events.

Some local authorities go to big festivals before they start and they check the whole thing and install fixed sound level meters and do the festival based on trust and record sound levels and have no more controls and site and encourage them to work like this and also to include and work more inclusive with venues themselves.

This you can get further with this and with only like policing that doesn't work so much, I think.

>> Thank you, Raphael. It is pretty impressive. People know Switzerland for their chocolate and skiing but not that since past 20 years Switzerland has regulation regarding sound and events.

>> Early 2000s, one of the leading countries in this area.

>> Yeah.

>> Thank you. You are so lucky to live and work in Switzerland. Next question goes to Brian what is one success story in safe listening you are especially proud of and what impact did it have?

>> Thank you for the question.

I work a lot with game developers; right?

As game developers our job is to create amazingly immersive experiences.

Unfortunately, sometimes experiences we are trying to create from a hearing perspective is not very safe of a listening experience to be at a battlefield or indie race track or stadium and reached out to developers and had good fortune at game sound con in 2003 and Shelly by happenstance was close to where game con was and she took I believe a 90-minute Uber and invited her to give opening remarks at game con and spoke for a few minutes and took 90-minute Uber ride back to where she was going and getting developers knowing this was a thing; right? When I started to work on arcade or old console games, it wasn't too dangerous to listen to a video game coming out of 3M speaker on mono television set and now industry has changed and transducers centimeters from ears we have to be more cognizant and talk at game developers conference about 30,000 people and attendance of audio portion of that was 250 or so and follow on roundtable session at game con and talked or gave the keynote at AES for virtual reality conference where focus of my talk was on

hearing safety. Mostly in terms of getting word out to people that this is the thing.

>> So change doesn't happen until people are aware; right? So sometimes you want immediate impact and measurable and keep your eyes open. Doesn't happen swift start from here.

>> Videos time of development is in years and having something put in to appear in a game will be some time and that said there have been changes those that have been here before heard from Patrick Swiddel professional video gamer footsteps that went off to infinity never quite reaching 0 and developer of the game actually changed footstep roll off curve such that after a certain point it stopped completely and things like that have happened and obviously once you take away the infinitely soft footsteps, the desire or need for a player to hear footsteps beyond a certain point go away and hopefully don't have to listen as loudly.

>> Thank you. Encouraging colleagues in room or online and if you have a reflection, put it aside and we will dedicate 30 minutes at end to answer these questions and going to the third speaker, Tatjana, can you share one success story? If you had to do it again, what would you not waste time on.

>> I think maybe just before I start spending 20 seconds on some of the tools that we promote to encourage responsible game play.

Of course, first of all, it is safe listening features in both hardware and software and second of all is parental tool and third one going to question, Rana, on success stories and we have number of awareness raising (?) National trade association level and also at European level and started consulting with members on how to include safe listening and raising awareness about the standard and raising awareness about safe listening features amongst broader video game community and two success

stories we had so far is within 2 or 3 weeks of adoption of standard and our Italian member and Italian national trade association idea spoke in Rome on a panel where Italian government was also present and subsequently published an article on safe listening.

Then video games Europe, who is our co-chair, has kindly taken the article. At end of May published it and is called safe listening habits in video games linking to WHO Website and to standard and contains a number of issues such as why it is important to protect hearing when you play video games tools available to players and role of parents and striking a balance between fun and well-being.

Now, why do we emphasize the balance between fun and well-being?

If we want players to adopt safe listening habits, we have to ensure a balance of safe listening features and of course everybody is aware of them, but they don't interfere unnecessarily with immersive fun that video games provide and at beginning of consultation WHO is not the fun police.

This balance is very important if we want to promote uptake of standard.

One thing that we -- I would have avoided to maybe avoid waste of time is I think it is too early to say. We are still at beginning and video games Europe is talking to all national trade associations so awareness raising campaign will be distributed across all European trade associations and it takes time.

Would we like to go faster? Yes. If, as they say, in China and Chinese proverb is if you want to go fast go alone and if you want to go far, work together.

>> Amazing. I can't summarize it better than this.
Thanks so much.

Going to Raj. If I write history of safe listening, what do you want me to write in book of history about Apple's contribution?

>> Excuse me. When I had my -- one of my first earlier iPhones, I had to get a European model to be able to get chicklets and safe listening and when I was listening too loud. I couldn't do it on my regular phone.

From where we were with European regulations and chicklets that basically mentioned every three decibels is all it was. It wasn't based on sound appreciate your to your ear and wasn't based on length of time.

Having seen that from where we were to bringing what we have done in H.870 generations bringing it to our iPad and iPhone and integrating with airpods, I think I would like to say that Apple has had a large contribution in the development and promotion of safe listening and bringing a strong user experience to the consumer.

>> Thank you, Raj. This really affects each and every one of us as a parent, teacher and person. Thank you so much. We go to Bjorn. If taking action in own sector, what advice would you give them?

>> That is a tough one though.

>> The aim of the panel is to inspire.

>> Exactly. Yeah.

>> How can inspire someone to say, okay. Today, I learned something new and will try this and try to convince this person.

>> I can't really speak of many sectors. Event engineering is a lot about individual people. Because in many -- many parts of engineering, there is very little formal training and engineering and lifetime learning getting inspired by other colleagues. For us, it really helps to address people. We do that in two ways, trying to get it into education, safe listening get it into education and idea to turn something that

is normally perceived as a limitation into something that is part of your and my professional pride; right?

What usually happens when we deal with health and safety, in many jurisdictions you only have health and safety coming from occupational health and safety and only thing that protects audience and musicians also and when there is a new regulation coming, we didn't do it. It is annoying and expensive and takes time and there is backlash against everything every time. For example, you know cheap little lamps that were everywhere and some of those tend to fall down at some point and is found. It was not very nice for them to fall down. We learned to put a safety wire on it, so when primary means of fixing it fails there is still a secondary one.

In beginning everybody was like that is annoying and we don't do that. 10 or 20 years later you talk to young event engineers not matter of professional pride if someone doesn't put the wire on they are like where is your train? What is wrong with you?

I believe where we are now is that hearing health which means level limitations and means sound level managing is now at the point where many people go this is kind of annoying and we didn't use to meet that and my idea is you have to get it to the point where it is part of our professional pride to say, of course we do it. We always have been doing it; right?

I think this is really it and addressing individual people and at least in my sector because it is so individualized let's say. Yeah.

>> Thank you, Bjorn.

We see complexity of the issue actually. Musician wants high volume and authority low volume and high volume and health sector and low volume and how can we harmonize all this together? This question, I would like to ask to Raphael and how

you convince others in your sector that safe listening really matters?

>> I think that the level that we have in Switzerland is 100Db and other steps not complying with other measures contribute to quality and is my main argument. We have much better quality of like sound in venues than we had before. When you have 100DB and above 100 and can't comply something is really good and sound system is not good or mixing something or acoustics are not good and something is wrong.

I learned lots of venues start to change things like sound proofing and maybe the stage and doing something in the back wall behind the mixing desk and simple things and some rooms were absolutely horrific in terms of acoustics and in the end led to better sound quality and audience was happier. 100db is quite loud and argue artistic freedom and government telling you to be quiet. My background now is not my intention at all. I think some kinds of music needs to be loud. 100db [no audio].

>> Thank you.

>> The argument was mainly this gets you better quality and better experience for your music.

>> Exactly. This is a misconception, actually, that people might have. Talking about misconception, I would like to ask Brian what say misconception about safe listening in your field that you would like to talk about now.

>> Misconception? That is a hard one. I think it might --

>> Misinformation. Something that people think it is true but it is not.

>> Yeah. I think similar to what Raphael was saying is there is -- obviously we have a juxtaposition between sort of our creative desire to excite the saculous that makes people literally physiologically more excited and wanting to maintain

safety. I think part of it is we want to make sure we -- we are very frank with people we are talking to about some of the limitations; right?

Right?

We are sort of at stage 1 in terms of video game hearing and health bae hind and being frank with people we are talking to; right? Talking to professional developers and games and first thing they look at is yeah that is great and don't know what kind of headphones the person has. I have no idea and can't have any idea what SPL level is at the ears and think the misconception is that we have to have a perfect end-to-end solution for us to make any difference.

So I think the misconception I would like to correct is I believe that we can in the absence of a complete and end-to-end solution we can make a meaningful impact what we do now working towards longer term solution and speaking of that it helps immensely talking to a bunch of audio developers and games and anybody's watch told them they were listening loud and 3/4 of hands go up and fact that Apple led in this makes my job much easier and gives the entire process more gravitas for the crowd I talk to.

>> Thank you.

>> Tatiana, scarce funds regarding humanitarian aid or health research, how do we convince people to invest in safe hearing?

>> It is a long process.

I think in the end that if you take time to explain the, you know, benefits not just for, of course, for the industry but of course for the well-being of players.

In the end, the video game industry has a very player-centric approach and we don't care about delivering very immersive entertaining experiences but players trust us to take care of

safety and well-being and helps a lot when we, of course, have internal discussions and when we decide where to put our resources.

I think the second point is engage at the global level does help.

When you start with maybe small projects where everybody sees benefits and focus on areas that are mutually beneficial where there are synergies and where there are particular objectives of, let's say, international organizations and industry that is aligned, it is much easier to convince the stakeholders to engage in something that everybody believes in. I think lots of time and explanation of mutual benefits for all involved.

>> Thank you so much. Tatiana, going to this question I will go to Raj. What is an opportunity in your field that others might not realize exists when it comes to safe listening?

>> These questions get harder and harder and hope prize money gets higher and higher.

>> This is the last one.

>> I think the simple one is safe listening is not just about a single device. The opportunity is to ensure whatever products they have, they tie it in together. You can get dosage from one source which means nothing if you are getting a dosage from another source and they are not tied together and think that say opportunity that lots of players are missing right now is tying it together so you get a single dosage and the cumulative effect.

>> Very interesting. This is my last question and maybe colleagues in the room or online will ask other questions later on.

My question now goes to Bjorn. What say persistent myth about safe listening in your space we need to leave behind?

>> I will be naughty to health professionals here and one fundamental problem with human hearing is louder is better and had to learn hard way evaluating scientific preferences and subtle differences in sound quality and code ex or whatever we have to calibrate systems 1/2db because other preference goes to louder material and that is a huger problem and ends the naughty part. In my particular field of activity, biggest problem as said before by Raphael that 100dbs is loud if you can't get emotion in 10dbs, maybe the song is just not good.

The problem is it is very difficult and most lay people and professionals don't see how acoustics work throughout a room and it is difficult to deliver consistent levels and those that are hurt are those directly in front of the speakers and most people paying same amount of money are far away from speakers.

Technical challenge is to deliver uniform sound pressure level or not overdue it at same time and we don't want perfectly uniform. People consciously choose to stand in the back and still want transparency and don't want the same impact and have to level sound differences.

The Problem is in small venues and those that don't have much budget and rooms that are acoustically suboptimal, it is very hard to do it and unlimited budget and engineering resources, it is easy.

We need to find ways to make it more uniform.

We will find out. Because when people say my concert is at 105, it is at one point in the audience that means it might be more dangerous in the front and less impactful in the back. That is where we have to actually -- we have engineering wiggle room that is better in health and safety it is better to come up with technical solutions.

Individual solutions, everybody needs to take care of themselves.

That is more risky. If I can fix the sound system for 1,000 people and protect 1,000 people in one go and rely on each of the 1,000 people to take earplugs and put them in and not hate them I will reach 1,000 people. For us it is an engineering challenge.

>> Thank you, Bjorn. This makes me think of another danger to hearing and well-being and going outside of recreational side of this panel and talking about people that live in war zones. I come from Lebanon and lived throughout the civil war and occupation and hearing bomb and explosions is part of who I am. I really think in our advocacy messages, we need to highlight and convince people that they are powerful. They have the power of choosing to protect their hearing if they live in a country that doesn't have war zone or -- so I think a lot is being done in this field but please as well when you do research and meetings, think about these people who don't have a choice to protect their hearing.

On this happy note, I would like to now see if we have any feedback from our audience here or on the chat. I have a colleague monitoring the chat. Do we have feedback or questions? If not we will open the floor.

No. Okay. Ladies first, please go ahead and introduce yourself.

>> Kelly Tramble. Thanks for sharing experiences whether it be through persuading industry or gamers or social movements. You know, when we use the words risk and endanger, any advice how to approach change makers even opening the dialogue? Those words sometimes I think can be facilitators or barriers and jump right into worrying about maybe we don't want to know what sound level is because then we are in trouble versus educating them in a way that persuades them to participate.

So any -- any advise how you approached conversations whether it is with your company or with individuals on how we can recruit more people to this cause without raising alarm or getting them to push back?

>> Thank you. Do we have a volunteer? Please, Tatiana, go ahead.

>> I think short answer is lots of coffee. Sometimes it helps getting together in informal setting and might be several conversations not one conversation where you have to understand the person's concern and either come up with solutions to address them or alleviate those concerns.

My approach has always been take the time to not just speak but to listen and not just listen but understand the other person and where they are coming from and their concerns and try to work it out together.

>> Any other speaker that would like to answer? No? We will move to the second guest. Go ahead, please. Introduce yourself.

>> Yes. Mark Lawrence and former listening safe co-chair and let's keep it at that. I won't ever forget a quote from this session if you get emotions across at 100db maybe something is wrong with your song and other hand it worries me everybody talked about 100db is loud okay but (?) Is not okay and needs to be combined giving protection. That is a challenge making sure that people will use and like to use hearing protection. Putting it in is not that easy and lot of confusion going and people say (?) DBA for 40 hours a week. And if a concert could be 100 and combine with hearing protection lowering it 80 and back to average of 80 and how can panel react that is a message that is not confusing and secondly how can we motivate those people spectating and being part of a venue or big concert to use hearing protection.

>> Very interesting. Anyone would like to answer? Go ahead, Raphael.

>> For us, this is a big issue. It is a bit contradictory to go to hearing concert and using protection (?) You always mangle with your sound and cheap one in Switzerland have to use protection. And people don't like it, and we serve. And main reason is the sound is bad, and there is peer stuff like the group doesn't think it is cool and okay. We are at 50% of people that regularly wear it in Switzerland, and we are high and last survey from a few years ago. And for me, biggest issue trying to convince clubs to provide better ones, but they cost more or provide an option you can buy at the bar and advertise them or better solution 20 francs or solution and brought some for \$30 that are pretty nice and doesn't have to be individual customized things and still is a bit of issue and have to convince people it is not always necessary to go 100 and when you do acoustic chairs and lots of styles that pop and don't necessarily need 100DB if the room is fine and sound system is good. You can -- I know a lot of mix engineers can mix pop with 97 or something that is already a lot less energy. Yeah. Remains a problem also for us. Yeah.

>> Thank you, Raphael. We have feedback from someone watching us online. I don't know the name. Dorte. She said I agree completely with Raj regarding multiple exposures and wonder if accurate measurement of EG exposure festivals gaming or like should be quantified in user friendly units so a user can count in same way we count number of roots and vegetables for healthy eating footsteps and other exercise statistics for healthy physical lifestyle or alcohol unit for precautionary behavior during festivals is that an idea worth considering?

>> I didn't realize the question was for me. That is fine too.

I think it comes down to if I understand the question is you want to define new terms.

When you define new terms, I think you will have lots of disagreement on it. Maybe a better approach would be an example that I think this is where I would say that the World Health Organization hit a home run on. It is all about messaging.

Rather than maybe quantifying, you know, 100 decibels is 10 carrots or you know whatever the units you want to use maybe it is exactly how they describe it. Maybe you are listening a little too loud and you can turn it back and you have an opportunity to see what the amount of dosage you have. So it is an education process. You are going to learn when you get the message and when you don't get the message against what the parameters are and which you maybe never understood. It is an education process.

Even when I get a new device, you know, I got the new set of airpods.

It is asking me if I want to take a hearing test. To me, that was pretty cool, and I got an opportunity to play with that.

It is an education process being able to find what is safe or not safe and better approach as it comes through the system.

>> Okay. Thank you, Raj. You always say questions are difficult but you answer them so well. We will keep asking you.

>> Can I comment. Sorry.

>> Go ahead. Wait a minute. Is this Tatiana. I know you want to leave. Before I take the comment that Tatiana, you said you have another meeting I have been told. No? That is fine. We have a comment. Would your -- from online. I heard someone speaking. Please go ahead, Dorte.

>> Yeah. Thank you. I'm trying to emphasize I'm not trying to introduce new units. I'm just trying to suggest we may break them down in a more operational way for uses.

As you say, (?) Is fine when you have instrument or device to report or guide you but if you want to combine exposures from other environments it could be useful for the user to do rough calculations themselves and for instance understand that 50 minutes at a concert would correspond to using headphones gaming or an equivalent from that and exposure from industrial situation he or she is living in and is trying to put it in terms of Pascal squared in terms of ours and dose units and agree on what 1 unit should be or could be 1/8 of 24-hour maximum and you would be allowed 8 units during the day. That is something that you can count.

It is easier to talk to the younger populations in these rough terms rather than explaining that it is very complicated with DB and over time and what not and that was just my thinking.

>> Yeah. Thank you. Really, it -- I'm so happy for this contribution that we hear lots of male voices.

I'm happy we have as well female experts with us.

Jeremy, please go ahead.

>> Thank you very much. I agree with what Dorte said. We need simple units.

On this I'm tempted to test water here with all of the experts running a very simple idea to express and be on more speaking to the younger generation and to express this pascal square or hours in years of aging and you know when you are overexposing your hearing system you are accelerating basically aging of your system and are familiar with ISO 1999 and giving normal aging of ear and X rated aging caused by noise inducing hearing loss and mapping one to the other and remember that Don

Johnson in 2003 wrote an article saying one rock concert is 2.5 years of hearing loss and you are aging faster and I'm 30 to give you real numbers I'm 30 and will turn 35 in 5 years and ears might turn 42 in 5 years because of accelerated aging. We tried this with younger generations and is working fine and when 16 years old and now have prospect of 20 years that is older and gives you -- you are very close to the grave at 25 and perspective for young and curious to hear from panel what it brings to the discussion. Thank you.

>> Thank you, Jeremy. Amazing analogy.

Who would like to comment? We have 9 minutes. After that we will take a question from Melita, and we will close and now who would like to answer? Please go ahead. Bjorn.

>> Good way to end it. What we are trying to teach people actually is stay within noise exposure that is still reversible, and we all hope it is reversible, and we want to -- it has to be fun. If you do permanent aging points that is very frustrating; right?

At the same time we like to quantify things and we constantly refresh solar panel apps and like to gamify things and permanent aging I would say is a bit of a sad reference point and making people aware and gamifying and resonates with people and aging is a bit permanent and okay to say at end of the scale are you here and likely to do irreversible damage and make it a red zone but not base unit of reference. And if not fun, people won't use it and discuss this at the bar. And phone says I'm at 6 units and four units only and where have you been. And this is what we need, and I'm this close to death, and this close to death that is not as fun as the bar or club; right?

>> Not fun at all. Shelly, go ahead before I give the floor to Melita.

>> Thank you, Jeremy, for raising that point about the hearing age or age of your years.

We have to be mindful here that while we are promoting safe listening we don't want to precipitate stigma around hearing loss and agism.

So and in a way by saying that your years are 60 years old or 60 -- we normalize hearing loss and age related hearing loss and fact is you can maintain good hearing across course of your life that is message that WHO keeps conveying through various preventive measures and good lifestyle and taking care of your years and you can maintain that.

I think while I know that that would derive from data and you have across ages and different ages and taking hearing levels and somehow while we have had this -- while we have discussed this but it is not from our perspective at WHO the way to go because it simply normalizes hearing loss as you grow older that is not really our perspective.

Secondly, also it precipitates stigma that relates hearing decline to aging and promotes agism for those reasons.

>> Shelly, let's take the last question before we close and wrap up. Please go ahead, Melita.

>> Question and comment and Raj was saying this is about education and we need to be doing more education. But Bjorn, you were saying you can control hearing for 1,000 people versus waiting for them to do it and put earplugs in and make changes.

So as we try to figure out at least from the eSports and video gaming place how do we do that?

You know, some things we have done at global eSports federation we hit it from both sides. Education for a world hearing day this year we had a professional womans basketball player co-owner of top eSports team and big in content creator

and showing video of gaming and sound is too loud and how to show how to turn it down and hit audience perspective aspect and global aspect and tournaments and games we have we talk to venue manager and production team and tournament organizer with recommendations for the venue.

We are trying to hit education and awareness from both sides.

Have you found a sweet spot --

>> Anyone have comments? Brian?

>> Multiple tiered approach you are not relying on any one vector to try to get the message out and hitting people -- hitting gamers where they are which is watching streamers and eSports tournaments live and would love if shout casters would mention it and shout caster is the announcer for an eSports event and same time we can work with technical side and people creating content and devices and is challenging and like smoking; right?

There is -- you know, I think that it is every cigarette takes a minute and a half off your life or something like that. Whatever seems to work for smoking seems there is a similar thing there and slow thing you don't notice it today and over periods of time is problematic and learn from some other successes.

>> Thank you, Brian. We are trying to manage the WhatsApp in the chat and see a hand and please introduce and unmute yourself and introduce yourself and go ahead.

>> Thank you so much. This is training from Uganda. I wanted to mention I had discussion here about the (?) And reflecting on Africa way of thinking, people don't understand decibel differences and like how loud is too loud. It is something that is still beating peoples understanding because if we have guided framework that articulates simple thing, and I

have summarized the way it would be super helpful to raise awareness about hearing loss. And lastly, the other thing was about misconception and discussions on syphilis and discussions are reservation and for those with hearing disabilities. No. It is studied along ways, and we have long way to go about programs and (?)

>> Anyone from the panel would like to comment on this? Shelly we have time to take two questions organizers or we close now?

5 minutes. I thought it was quarter to one. We have a question from (?) Jonathan and question is what does the panel think about limitation of a weighted measures as base units and noise and music is broadband. Anyone from the panel?

Brian.

>> I will reflect I had the same question since I came to the first meeting 2 years ago and have heard from different audiologists Ben canters about the history where it came from and factory floorism and if anybody has a good scientific answers as to why we are weighted versus C weights and would be great information for me and question I get talking to people that create content as well.

>> Thank you, Brian. Go ahead. Please, Bjorn. Waiting for loud sound is not the right thing to use. It is made for conversational levels and reflects sensitivity of human hearing apparatus and now decibel A is wrong thing and concerts are wrong and allow us to play bass louder than we should be hearing sensitivity is higher on these levels and other hand if we choose correct waiting in western rock & roll we wouldn't meet both aesthetic requirements and levels.

It is a bit of a tough topic in German standardization Council we had the same thing. People were like you are right and let's not go there.

>> Okay. Maybe I will do the same.

>> Weird way to handle it. Good thing is also if you -- people tend to say decibel. If we use DVA, for example, if you talk to a professional from authorities that is measuring your concert and factory floor telling you it is too loud, they will measure DBA and are not trained to understand what it means and maybe should live with fact it is not correct but what people understand it to be otherwise people say DB that confuses things and 100DB LOQ is difference to 100DB peak once and people won't get it, and let's keep it simple and live with fact it is not correct but what we all use.

>> Thank you. We have very technical discussions about that and this kind of question can be addressed.
We have one.

It is from Ian McGregor and key step in ensuring safe sound exposure in live venues is re-thinking traditional approach to mixing and rather than building sound from drums upward, engineers should be trained to work backwards from vocals that are typically quietest and most exposed elements and front of house mix should be treated as filler for the stage not foundation and means starting with a stage sound particularly monitors and ensuring clarity and balance there first.

Only then should front of house system be used to supplement what is used for audience rather than overwhelming with excessive volume and anyone from panelist that would like to comment on that? Raphael you are the expert.

>> I agree.

>> I mean these are -- I will talk about these workshops with sound engineers and talking about how we can improve things with mix and agree and depends a bit on -- depends a lot on venue and style of music, I guess.

There are certain styles of music with no vocals and very you want impact and low impact and yeah. Also DBC we don't go there.

>> Okay. Go ahead, Bjorn.

>> Spot on contribution from online. It won't work in large venues just small venues with small audiences contribution of space sound is controversial and it is an important recipe to improve. Small clubs are most -- and large concert situations sound field is more homogenous and easier to control and better oversight and supervision and danger is in small clubs and memory online and is a useful thing we try to teach people more and more.

>> Thank you, Bjorn. Quick takeaways saving is achievable and passionate individuals like everyone in the room and online and change doesn't have to be big to be meaningful but small shifts can have global impact and sectors from tech to entertainment to health has a role and thank you for attendance and questions and with this I close this talk show. Thank you.

>> Thank you, Rana, and to all of the panelists. With this, we now reach the lunch hour, the much awaited lunch hour. I invite you all to have lunch at ITU not invite you I request you all to have lunch at ITU cafeteria that is an option and other options that maybe be guided to other options to get lunch.

>> Cafeteria, everyone is welcome to go there and pay for your food. It is not offered, unfortunately. Other options would be [no audio]. Then there are a few restaurants, Italian in the -- nearby. Across the street behind the UNHCR refugee agency there is a restaurant COO p there that is also available there. There are many options you can walk around a little bit and explore. I don't remember exactly what time you are coming back. 2:15.

>> 2:00 p.m.

>> 2:00 p.m.

>> Be mindful of time if you go out and be back here at 2:15 for very -- by -- sorry. By 2:00 p.m.. Yeah. I'm confused also.

By 2:00 p.m.. We will -- because now we have been looking backwards for this session and let's be prepared and put ourselves in mindset to look forward and plan for future in the next session.

I will see you back here at 2.

Please, for those that would like to join the contributory dinner tonight, which is at 7:30 p.m. in the old town, we sent you e-mails that maybe you didn't see them and in case you wish to join let us know to get the numbers to the restaurant.

(Session ended at 1:00 p.m. CET)

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