

Working Group "Healthcare & Welfare" – Meeting 15

Summary of Meeting #15, October 09, 2023

Agenda

1. Webinars & Physical events during 2023:
 - a. Follow-up on proposals and ideas from meeting # 12 including additional comments and proposals.
 - b. Proposals for possible speakers
 - c. New themes?
2. Collaborative projects, update of proposals, indication of possible project consortia.
3. News from DSC secretariate
4. A.O.B.

Ad 2: Webinarer & fysiske events i 2023/2024

#	Subject	Background
7.a	Speech analysis, pathology, speech recognition	<p>Timing: October / November 2023</p> <p>Dan Sattrup Nielsen, CoRal project, offers a webinar on speech analysis October/November 2023.</p> <p>Contribution from:</p> <ul style="list-style-type: none"> • Alexandra (Dan Sattrup and others) • Alvenier (Martin Carsten Nielsen) • Corti (perhaps Lars Maaløe) <p>Timing: The event is planned for December 7, 2023. Will be published next week.</p>
12.a	Practical use of sound in the healthcare system	<p>DSC has decided to include the 'Isobel project' in the upcoming "SoundDay 2023". There will not be a presentation, but Isobel project will have a small exhibition booth at SoundDay 2023. Helle Nystrup cannot find time now for reporting on her work, not in a webinar and not at SoundDay 2023.</p> <p>Given that the theme will be addressed at SoundDay 2023 to the extent that is possible right now, we drop the theme for a webinar.</p> <p>The theme is transferred to waiting list.</p>

#	Subject	Background
15	<p>Education in DK: 'Hearing care professionals' (HCP)"</p> <p>With a focus on "Continuing education"</p>	<p>Consensus that we should aim at a physical event for this topic area rather than a webinar. Networking is seen as essential.</p> <p>Focus:</p> <p>“Quality Requirements”</p> <p>New Danish national quality requirements for hearing aid treatment for adults are in the process of being instituted. There is a general need for a broader community in the sector to understand how that will impact traditional approaches and operating principles.</p> <p>Current requirements are not seen as strong requirements for speech and noise tests, but still the emerging ‘Quality Requirements’ are seen as a relatively radical game changer. Continuing education in context of Danish Sound Cluster should not aim at detailed instruction courses in the area, which could better be handled by universities (e.g. SDU) and continuing education organizations.</p> <p>Instead, the event should focus on the fact that Danish hearing-aid patients in future will be fitted in ways that should provide better reference for subsequent re-adjustments. Presentations should not just talk on the topic of e.g. Real Ear Measurements (REM), Speech in Noise Tests (SIN), or Questionnaires, but take ownership of the specifics of the new quality requirements (i.e. focus primarily on what the practical intentions of the new requirements rather than on negative effects of the requirements).</p> <p>It is not the ambition to be a deep R&D focused event (that may follow in another event) but keep focus on more practical issues.</p> <p>The event will have three focus areas:</p> <ol style="list-style-type: none"> 1. Real ear measurements’, REM 2. Speech-Noise tests 3. Questionnaires (based on international requirements) <p>Audience:</p> <p>Practitioners, hearing care professional, people supporting the hearing care professionals (e.g. supplying equipment, facilities, etc.), general audience in the hearing aid industry that has a need to understand the new direction in public and private supported approaches in the field, etc.</p> <p>Program</p> <ol style="list-style-type: none"> a) Moderator Tobias Neher, Professor, SDU. b) “New Danish quality requirements for HA treatment”: Gert Ravn, FORCE Technologies c) “Real-ear measurements: Background and added value wrt. HA treatment”: Ibrahim Almufarrij/Kevin Munro, Univ. of Manchester, UK (Jeppe to contact) d) “Speech audiometry: Background and added value wrt. HA treatment”: (prof. Inga Holube, Oldenburg Univ) e) “Questionnaires: Background and added value wrt. HA treatment”: (Jonas Brännström, Lund Universitet, SE) f) Panel discussion, e.g., with a focus on comparing the UK, SE, and DK systems. <p>Event type:</p> <p>Physical event.</p> <p>Arrival and lunch: 12:00 – 13:00 Event : 13:00 – 17:00 (event and networking).</p> <p>Venue for hosting:</p> <ul style="list-style-type: none"> • SDU in Odense (geographical balance of DSC events). SDU offers to host event. Tobias will arrange the practical issues. <p>Timing: March or April 2024 (Avoid DAS arrangement March 6, 2024)</p> <p>The working group on “Healthcare & Welfare Sound Solutions” will meet from 10:00 until lunch at 12:00.</p> <p>Audience:</p> <p>A broader technical group, not restricted to the core technical group of hearing care professionals</p>

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16	Self-test of the need for hearing aids, remote test of hearing disabled, etc.	<p>Awaits results of Palle Rye's Ph.D. project completion. UAUD are not critical in timing in respect to webinar event.</p> <p>As a supplement to On-line services, AAU under the BEAR project is currently working on at to produce solutions so that a potential user of hearing aids can sit in their own living room and decide whether there is a need for a hearing aid or not. Among other things. PhD student at Dorte.</p> <p>Suggestions for contributions from:</p> <ul style="list-style-type: none"> • Palle Rye, Ph.D. student with Dorte at AAU, but is late. • UAUD project at SDU, Jesper Hvass Schmidt, Teleaudiometry <p>WHO has, among other things, a self-test APP, "hearWHO", which can be downloaded to mobile phones. Its purpose is to achieve early identification of hearing loss with the aim of e.g. to be able to counter that exposed/predisposed persons are exposed to additional influences which intensify hearing loss. https://www.who.int/teams/noncommunicable-diseases/sensory-functions-disability-and-rehabilitation/hearwho</p>
18.a	Approval of products, e.g. CE marking of products.	<p>Proposed program:</p> <ol style="list-style-type: none"> 1. Søren Storm, Dansk Standard project management-oriented approach to CE approval 2. Kim Boll Jensen, Bolls "How can an SME meet CE requirements, a case example." 3. Jacob Steensen or colleague, FORCE Technologies "Approval of wireless interfaces in products" 4. Panel discussion <p>Target group: SME companies. Proposal to also send out invitations through e.g. DTU's mentoring program (Deep Tech monitoring) to get many SME companies and start-ups talking.</p> <p>Birger to make agreements with event contributors.</p>
18.c	Approval of products that require medical approval. New subject	<p>Medical approval of products is a challenge, not least for start-ups and SMEs. Approval to eg. FDA in the USA and European requirements, including DS/EN/ISO 13485, and where to start?</p> <p>Large companies in the area, not least the hearing aid companies, deal with the challenge as an integral part of their general quality organization. They have the experience of how to attack approval in the individual markets. For an SME, the challenge is often great, because they lack experience and do not have a quality organization that supports this.</p> <p>A webinar could focus on:</p> <ul style="list-style-type: none"> • Oticon's regulatory team is willing to contribute 30 - 60-minute submissions on the challenge. (Lars has contacts) • Can GN-Hearing and/or WSAudiology contribute? (Birger to send mail to WG members from the two companies) • SME: Asculpto start-up, Aalborg, Oliver Damsgaard, Research assistant, Biomedical Engineering, Aalborg University Hospital (Intelligent monitoring of arteriovenous fistulas in hemodialysis patients) (Birger to contact) <p>SME input could be questions to the more experienced people. Can Jakob Kristensen Dalsgaard, SDU (Lizzard Technologies?) be of interest? (Birger to contact)</p> <p>What about SoundFocus, are they active in the area? (Birger to contact Kim Rishøj)</p> <p>Timing is still premature.</p>

#	Subject	Background
20	Access to data from the hearing care service	<p>Researchers' access to the many hearing data that exists in DK, but to which no one, or only a few today, has access, is interesting. Either because systems do not talk to each other, or because of a lack of policy in the area, i.e. who owns the data.</p> <p>The topic is political, and it would be appropriate to secure participants from the established political establishment, from the Regions and others.</p> <p>It could be a contribution from DSC to also give SME companies better access to results that they could use in their development of products and services.</p> <p>Discussion:</p> <p>The situation surrounding hearing data is complex. In the "Bear project" it became clear that the quality of hearing data from the various clinics is not at a level where it makes good sense to compare data. Now, new requirements for the quality of hearing data, see also point 15, Focus: "Quality Requirements". . However, no funds have really been allocated to the area yet by the Government.</p> <p>Challenges with data ownership have not been clarified, in addition there are requirements around GDPR, validity of data, etc. Danish legislation in the area is restrictive in an international context and makes it difficult to share data. There is also consideration that results must be unbiased, so that you can e.g. do not give trial participants access to their own previous answers in questionnaire surveys, as this will influence answers, etc.</p> <p>With regard to the interconnection of data, there is a development underway in e.g. the project "InHear", which runs at Aalborg University Hospital, and where Lene Dahl Siggaard, will defend her Ph.D. in 2024. in the area, Supervisors are:</p> <ul style="list-style-type: none"> • Morten Høgsbro, MD, Ph.d., M.Sc., senior physician, clinical lecturer • Henrik Jacobsen, MD, mMBA, chief physician • Dan Dupont Hougaard, MD, senior physician, clinical associate professor <p>To get an update on the status, the Danish Health Data Agency should be contacted, as they are behind "InHear".</p> <p>https://www.inhear.dk/</p> <p>https://sundhedsdatastyrelsen.dk/da/strategier-og-projekter/hoereomraadet/ny_model_digital_visitation/inhear</p> <ul style="list-style-type: none"> • Søren Jakobsen, <p>Jeppe will contact Lene Dahl Siggaard to get an update on, whether she can contribute in a webinar and also if she needs assistance from Danish Sound Cluster in relation to dissemination of results from the "InHear" project.</p> <p>Once we have that information, we can decide if there is enough content for a webinar, or we should drop the theme.</p>

#	Subject	Background
21	Music in relation to dementia New subject	<p>Projects underway or recently completed under DSC focus on the use of music in dementia.</p> <p>There is great interest in the subject, although research in the area still seems weak. Dementia seems to be closely related to loss of hearing. Hearing aid companies claim this and are supported on such views by US clinical studies.</p> <p>Lars and Erik will ask around in their organizations if there are references to the topic that can be used, e.g. links to people in the USA that could be contacted to assist in a webinar.</p> <p>The topic can perhaps also be broadened to include general strengthening of brain processes and cognitive training using music.</p> <p>We will continue discussion on the theme at the next meeting.</p>

Upcoming Events

Danish Sound Day, 7th November 2023 at 'The Center for Hearing & Balance'

Next Meeting

The next meeting in the Working Group was agreed to take place on Tuesday, December 12, 2023, 14:00 – 15:00 hrs. However, to allow for more people to participate, we will postpone the meeting to January 2024.

A Doodle or similar will soon be circulated to all members of the working group to allow for an optimal time for next meeting in the working group.

Appendix 1: Attendees in the meeting on August 16, 2023

Erik Lund	Oticon A/S	Manager, audio processingsteam i R&D
Lars Bramsløw	Eriksholm research Centre	Senior Scientist
Tobias Neher	SDU, Sundhedsvidenskabelig Fakultet, Klinisk Institut	Professor
Birger Schneider	CHAMAJ Consult	Director
Torben Vilsgaard	Danish Sound Cluster	CEO
Jeppe Lindegaard	Danish Sound Cluster	Program Manager

Appendix 2: List of potential themes

Addressed or proposed in previous meetings but for now put on list of potential topics. Waiting for the topics to be better matured – or the need better identified.

#	Subject	Background
11	APP and software	Target group: young people with an interest in sound.
12.c	Music therapy	<p>Therapeutic approach to the use of music. Relationship between music therapist and client, the use of music.</p> <ol style="list-style-type: none"> 1. Professor Hanne Mette Ridder, AAU (music therapy, among other things in connection with dementia)? 2. Artists who use music in therapy as a kind of "music medicine", rather than actual therapy (where there is a relationship between therapist and client), e.g. Niels Eje and Inge Mulvad Eje (CD series "Musicure" <p>Kira will consider proposals for concretization.</p>

Appendix 3: Events proposed and developed by the Working Group

Topics that the Working Group has initiated, or indirectly helped to initiate.

#	Title	Comments	Event type	Date
8 & 9	The new Bluetooth LE Audio standard		Webinar	22 June 2021
1	Make listening safe		Webinar	6 October, 2021
10	Online-tjenester til høre-rehabilitering mm.		Webinar	18 January 2022
12.b	Noise and its Effect on our Health”		Webinar	7 April 2022
13	Music interventions in HealthCare	Based upon DSC project updating older ”White paper” in the area	Webinar	14 September 2022
7.b.	Speaker Separation		Webinar	23 November 2022
14	” Assessing Real-life User Experience to Improve Hearing Technology”		Webinar	31 January 2023
14	“Sensors, Methods and Tools for Ecological Momentary Assessment”		Webinar	9 February 2023
	”Hearing restauration”		Webinar	19 April 2023
	Hearing aid speech enhancement processing with ML and AI		Webinar	5September 2023