

## Summary: "Creative Sound Solutions" – Meeting #11

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The working Group meeting #11 took place Wednesday, November 23, 2022, 14:00 – 15:00

### Agenda:

1. Webinars:
  - a. Follow-up on proposals and ideas from meeting # 06 including additional comments and proposals.
  - b. Proposals for possible speakers
2. Physical events during 2022
  - a. Meetings? Workshops? Others?
3. Collaborative projects, update of proposals, indication of possible project consortia
4. Other ideas for Danish Sound Cluster activities
5. A.O.B.

## Ad 1 Proposals for Webinars

| #  | Subject  | Background   |
|----|--|--|
| 4  | AI-based solutions   | Postponed.   |
| 5a | Across boundary solutions, i.e. involve artistic perspectives in audio technical solutions. (the border region of sound of art and technical facilitation) | <p><b>Timing:</b> May-June 2023</p> <p><b>Focus:</b> Use of Ambisonic rooms</p> <p><b>Background:</b><br/>                     Several R&amp;D environments in music are currently building ambisonic sound facilities (full-sphere surround sound laboratory rooms). Approaches taken vary. Opinion of the working group that focus of events should be on the <b>use of such room</b> in the R&amp;D and production school environments - not on the 'scientific approach', i.e. how rooms implemented.</p> <p>Implementations appear different from institution to institution. The first event will probably be based upon early experiments and use. Then later on (after ½-1 year) we can follow up on progress made, and possibly include more players.</p> <p>A follow up of the event approx. every ½ year seems an interesting approach.</p> <p>Some <b>of the work is funded through the project KUV ("Kunstnerisk Udviklings Projekt")</b></p> <p><b>Potential contributors:</b></p> <ul style="list-style-type: none"> <li>• <b>Sonic College:</b> Lars Tirsbæk</li> <li>• <b>Kunstakademiet:</b> Jenny Gräf Sheppard,</li> <li>• <b>Rytmask Musikkonservatorium</b> <ul style="list-style-type: none"> <li>- Søren Kjærgaard,</li> <li>- Sharin FOO</li> <li>- Louise Foo,</li> </ul> </li> <li>• <b>Cujo Sound,</b> Bjørn Jacobsen,</li> <li>• <b>Audio Design,</b> AU: Morten Breinbjerg,</li> <li>• <b>VEGA: Kevin Le Geyt,</b></li> <li>• <b>Sound in Education (Struer Kommune):</b><br/>                     Katrine Frausig, project manager, Struer + Nick Dunkerley, Hindenburg Systems.</li> <li>• <b>Det Jyske Musikkonservatorium: ?</b></li> </ul> <p><b>Status:</b><br/>                     Pedro has not yet been in contact with the potential contributors but will start now.</p> |
| 5c | Mapping of current Danish status of multidimensional sound in education, research, movie generation, theater production, etc.                              | <p>Recommendation to create a worksite including a shortlist of the organizations identified by the Working Group.</p> <p>Implementation will be processed by the DSC secretariat</p> <p><b>Status:</b> DSC will create a page with the collected info on Institutions, contact person and contact data, and a short description on each site. To be updated over time</p>   |

| # | Subject   | Background  |
|---|---|---|
| 8 | Optimal sound environments for "large room offices" | <p><b>Estimated time</b> for conference: February <b>2023</b></p> <p><b>Approach:</b> Physical event, conference, 50-100 participants.</p> <p><b>Duration:</b> about 4-5 hours</p> <p><b>Target audience:</b> Architects ('Dansk arkitektforening'), engineering companies, sound technicians and others (we may use other clusters for marketing as well)</p> <p><b>Venue:</b> Alborg University, CPH ?, DTU ?</p> <p>A preliminary program has been identified and most of te potential speakers have been contacted:</p> <ul style="list-style-type: none"> <li>• Jens Holger Rindel (will fly down from Norway)</li> <li>• Marianne Lykkesfelt, architect</li> <li>• Ander Jørgensen, Stormgaard (Meyer Sound, acoustical zones offering privacy using a 'sound carpet' to separate acoustically)</li> <li>• Morten Roar, Saint-Gobain (involved in standardization in the area)</li> <li>• Lars Back, Jabara (intelligent headsets that increase sound level, when one raises own voice during conversation, controls one's voice level)</li> <li>• "Arbejdstilsynet" (not yet contacted)</li> <li>• Plans also to include some large companies (HR or facility management) that are in the process of planning large office environments, e.g. Ole Abildgaard, Novo.</li> <li>• Sonic College ?</li> </ul> <p><b>Status:</b> Eddy has made the preliminary contacts to speakers. DSC secretariat should now take over to ensure that we can have physical event in February 2023. Pedro and Torben will contact Eddy.</p> |
| 9 | Use of sound in museums                             | <p><b>Focus:</b> Use of sound in 'story telling' at museums.</p> <p><b>Timing:</b> Webinar in H-1 of 2023. Sonic also plans a full day "theme day" later, an international conference, possibly end of 2023 (with Alcina Cortez, Portugal).</p> <p><b>Situation today:</b></p> <p>Sound in museums is used in many 'flavors' and with quite different approaches. Often the background and understanding for adopting a sound strategy is not well founded, sometimes just based on a concept "someone offers for sale". No real R&amp;D basis seems available today. Results in implementation are of rather varying effects.</p> <p><b>Potential speakers:</b></p> <ul style="list-style-type: none"> <li>• Anders Jørgensen, Stouenborg</li> <li>• Birgitte Folmann, Researcher at Sonic College</li> <li>• Person from e.g. H.C: Andersen Museum, Odense.</li> <li>• Other candidates</li> <li>• Case stories, e.g.:</li> <li>• Varde Museum, Varde</li> <li>• H.C. Andersen Museum, Odense</li> <li>• Viborg Museum, Viborg</li> <li>• Søfartsmuseet, Helsingør</li> <li>• Tirpitz Museet, Blåvand</li> </ul> <p><b>Working Group:</b> Lars Tirsbæk, Birgitte Folmann, Nick Dunkerley, Birger Schneider. Birger has sent out invitation for a zoom meeting. Awaits feedback.</p>   |

| #   | Subject  | Background   |
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| 11b | <p>Podcast tools, approaches, and support with special emphasis on females</p> <p><b>New subject title:</b></p> <p>Podcast tools, approaches, and support with emphasis also on 'gender'</p> | <p>A significant part of podcast production today is delivered by females, whereas the technical support is frequently provided by males.</p> <p>The current gender division appears unbalanced, which ripples down to become an obstacle in recruiting e.g. females in sound engineering. It is an observation by some that females seem to have strong presence in audiology, whereas it is completely opposite in sound engineering.</p> <p>Although females often are seen as more creative, they are still underrepresented by gender according to Nick. The female percentage is still only in the low 40's, depending on country.</p> <p>Sonic College tried recently to address the issue in a panel discussion at 'Sonic Days' in September. However, the approach was not well taken by at least the female part of the audience. One take from the Sonic attempt to address the issue is that to circumvent the situation, it seems more important to establish role models, where females are actually seen as important parts of also the technology side, i.e. sound engineering.</p> <p>One way ahead could be that e.g. Danish Sound Cluster in future events always ensure to have females take an active part in events to obtain good role models and a more balanced approach.</p> <p>Hindenburg systems have been in the business for over 10 years. They have designed their software for podcast production support with a focus on people not interested in audio engineering, but just want to obtain easy to use support. However, an outcome has been that many females now use the tools and grow with them into more complex production schemes as well. The approach can be seen as a gateway for females, and males with less audio engineering skills, into audio engineering – an effect that is highly needed.</p> <p><b>Focus:</b> <i>'Innovation in podcast production' &amp; innovation in getting people into podcast production – how can technology lower the barrier for people to go into podcast production.</i></p> <ul style="list-style-type: none"> <li>• People lacking a strong background in sound engineering but aims at podcast production.</li> <li>• Solution providers for podcast generation</li> <li>• Experienced people in podcast production and knowledge of the difficulty in supporting a user segment that has ambitions for podcast production but limited background in the area.</li> <li>• “Democratize” podcast production in general</li> <li>• “Storytelling” market</li> <li>• Symbiosis between podcasters and audio people.</li> </ul> <p><b>Potential contributors:</b></p> <ul style="list-style-type: none"> <li>• Nick Dunkerly, Hindenburg Systems,</li> <li>• 'Journalisthøjskolen'</li> <li>• SDU, Susanna Maria Sommer,</li> <li>• RUC</li> <li>• Anders Høgh Nissen, podcaster,</li> </ul> |

| #   | Subject   | Background   |
|-----|---|--|
| 12a | Game audio (for game applications)                        | <p><b>Focus:</b><br/>A webinar or a workshop on game audio, including the involvement of game audio companies.</p> <p><b>Time schedule:</b><br/>2023 H1 (when the DSC secretariat overcomes current workload)</p> <p>Be clear on the objectives. Focus on the technical side of game audio or the creative side of game audio?</p> <p>Proposed speakers:</p> <ul style="list-style-type: none"> <li>• Rob Bridgett, Senior Audio Director, Canada,</li> <li>• Bjørn Jacobsen</li> <li>• Kristian Rømer @ IO Interactive</li> <li>• Simon Stevnhoved Rasmussen – Massive</li> <li>• Eddy's contact to a game audio company (Viborg &amp; Copenhagen) that makes game audio in mono (for use in mobile phones)</li> </ul> <p>Discussion postponed until next meeting.</p>  |
| 12b | Using game audio engine in other applications than gaming | <p><b>Time schedule:</b><br/>H2 of 2022 or H1 of 2023</p> <p>Gaming engines are extremely powerful and e.g. in broadcast activities, game engines are taking over activities (today primarily in video, e.g. nVidia) that was previously handled by traditional processors.</p> <p>However, still an issue that only few people have experience with the obvious possibilities of using game engines for audio applications.</p> <p><b>Use applications:</b><br/>e.g. in audio walk, creating virtual exhibitions (e.g. Yann Copier), etc.</p> <p>'Den Danske Filmskole' (Rune) has tried using game audio engines for this purpose but had to give up as use of game audio engines for such applications is currently too time-consuming and cumbersome. So, for the time being, only the image department benefits from it in e.g. Virtual Production.</p> <p>May be the Microsoft soundscape 3D audio experience (Soundscape App for iPhone) that enriches a blind person's perception of surroundings when walking in a city) fits the theme, <a href="https://blogs.microsoft.com/accessibility/soundscape/">https://blogs.microsoft.com/accessibility/soundscape/</a></p> <p><b>Possible contributors:</b></p> <ul style="list-style-type: none"> <li>• Nikolas Borrel-Jensen, DTU, currently involved in machine learning using such tools.</li> <li>• Yann Copier: Is at the bottom of using it. Could be a source of identifying more players in the area and if it develops further.</li> </ul> <p>Birger to contact Rune. The result from that contact is included above.</p> |

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|----|-----------------------|---|
| 13 | Dubbing challenges II | <p><b>Situation today:</b></p> <p>Dubbing is undergoing radical changes in current years. For example, in broadcast DR is now focusing heavily on podcast production, i.e. simple and fast production of content. Many people producing podcasts have no strong sound engineering backgrounds, they just want to be able to produce podcast easily – giving their minimum baggage of technical skills in sound technology.</p> <p>Efficient tools are available and the market for such tools develops fast in current years, supporting improvement of even poor-quality audio raw material.</p> <p>However, the entire scene of production is changing rapidly, and a webinar could focus on:</p> <ol style="list-style-type: none"> <li>1. The professional market of tools. Here, the entire work process is supported using new tools such as Adobe Premier, Avid Media Composer, Black Magic editing, etc.</li> <li>2. A more general tool market for less skilled users lacking deep audio engineering background.</li> <li>3. Trends in support tools: Getting inputs from major suppliers of tools on what the trends are in tool technology and what can we expect for the coming years from the suppliers.</li> </ol> <p>The first area could possibly be presented by people from e.g. DR or TV2, subcontractors including podcast companies, since they are already in a process of change, have experience and can enlighten others on, what the changes in working processes mean.</p> <p>The second area is for user active outside the traditional professional market, but now in growing numbers become suppliers in broadcast and alternative communication channels.</p> <p>The third area is for people in broadcasting and other audio generating industries, i.e. podcast producers, trying to understand trends, i.e. what the tool developers are likely to bring to market in the next few years (enlighten us on their 'crystal ball' visions).</p> <p>The industry of traditional audio content suppliers faces significant changes in working processes, markets, and uses of tools. That is what the Webinar should try to address.</p> <p><b>Focus:</b></p> <ul style="list-style-type: none"> <li>• Current challenges and “tool landscape”</li> <li>• Where is the area heading?</li> <li>• What is on the wish list from users?</li> <li>• Inspire tool provides</li> </ul> <p><b>Contributors:</b></p> <ul style="list-style-type: none"> <li>• Nikolas Borrel-Jensen, DTU, (future trends)</li> </ul> <p>Encourage Lars N. and Morten to identify potential contributors. Lars N. already had some contact in DR that did not mature, and contacts to Adobe signaled that only their salespeople would contribute, which sounds less attractive for a technical event.</p> |

| #  | Subject   | Background  |
|----|---|---|
| 14 | Ethics in audio production                          | <p><b>Situation today:</b></p> <p>Ethics is becoming more and more important – also in relation to audio generation (risk of “deep fake” exists). Several cases of restricted sound exist. In general, if sound in relation to documentation is compromised through reconstruction, “hell breaks loose”.</p> <p>One angle to the theme could be to involve do documentarists in radio/TV production.</p> <p>In a metaverse world, we might imagine a fully immersive, hyper-realistic virtual world that caters to all our senses.</p> <p>General agreement that challenges related to ethics in sound will become a more and more vital issue over the coming years. Various types of AI support will allow creation of virtual sound, for example creation of voices of deceased people or other types of virtual sound creating. Ethical challenges follow naturally in the wake of many technological developments, and the use of AI in sound is no exception in this regard. It is crucial to start the debate early in this development, so that the area does not develop into a Wild West area.</p> <p>For example, the Danish association for Speakers and Readers, <a href="http://www.Danishvoices.dk">www.Danishvoices.dk</a> are concerned with the situation on voice cloning.</p> <p><b>Possible contributors:</b></p> <ul style="list-style-type: none"> <li>• Brit Ross Winthereik, DTU, professor in the Division for Responsible Innovation &amp; Design</li> <li>• Charlotte Rathnov, ViceChair in <a href="http://www.danishvoices.dk">www.danishvoices.dk</a>,</li> <li>• ETHOS lab, ITU</li> <li>• Morten Holm, tonemeister</li> <li>• Kyogu Lee, Professor, Principal Investigator, see <a href="http://marg.snu.ac.kr/marg_people/">http://marg.snu.ac.kr/marg_people/</a></li> <li>• Thomas Damkjær Petersen, now retired chairman from IDA, member of SIRI commission</li> </ul> <p>Nick had identified a commercial organization that apparently offers actors to clone their voices for use in various types of applications. The company claims to be 'ethical' in its approach. <b>Name of company and contact coordinates?</b></p> <p>In sound engineering education, the theme does not yet seem to serve a major role.</p> <p><b>Pedro to make first contacts to potential contributors.</b></p> |
| 15 | Indoclimate or Indoor climate project under horizon | <p><b>No discussion in the meeting. Awaits next meeting, where Cheol-Ho is present. Unknown, if the project has received funding.</b></p> <p>DTU is submitting a Horizon 2022 application together with Royal Institute of Fine arts.</p> <p>The topic is indoor climate, which focuses on sound monitoring, ventilation, CO2, acoustics, etc.</p> <p>If the project receives funding, there may be content for a webinar.</p>  |
| 16 | Women in sound                                      | <p><b>No discussion in the meeting. Awaits next meeting.</b></p> <p>Additional focus on “Women in Sound”, see also point 11. a.</p> <p>In the UK there is an organization “WICE” (Women in sound) that may serve as an example (Morten Brandstrup):</p> <ul style="list-style-type: none"> <li>• <a href="https://risewib.com">https://risewib.com</a></li> </ul> <p>see also 11.a (Appendix 2).</p>  |

| #  | Subject                    | Background  |
|----|----------------------------|---|
| 17 | Jawbone headset technology | <p>Major progress seems to take place in jawbone-based headset applications – not least in military and critical mission application.</p> <p>Also, in more classical use of headsets, e.g. in TV &amp; radio production, where people use headsets basically all-time during workdays, the technology is becoming more of interest. Even classic headset manufacturers like Jabra are seen to move into this domain.</p> <p><b>Potential speakers:</b></p> <ul style="list-style-type: none"> <li>• Bo Håkansson, Chalmers, S</li> <li>• Invisio: Professional market for jawbone products, Jan Larsen, Senior VP, R&amp;D-manager,</li> <li>• Auricle, Pedro Costa: consumer use of jawbone-based products</li> </ul> <p>Pedro will work on the topic.</p> |
| 18 | Use of sound by artists    | <p>An event, where artists are talking about how they use sound, what tools they use for creation of sound, and what challenges they face in doing so.</p> <p>Still early in preparation and the topic may be covered by other events. For new we want to collect names to see, if there is enough material for an event on its own right.</p> <p><b>Possible contributors:</b></p> <ul style="list-style-type: none"> <li>• Joelle McGovern (Eddy Bøgh Brixen)</li> </ul> <p>Theme was not covered in the meeting. Will be discussed in more depth at our next meeting.</p>  |



## Ad 2.: Physical Events (H1 of 2022)

## Ad 3 Collaborative projects, update of proposals, indication of possible project consortia

The next round of project calls has a deadline of December 9, 2022 and is expected to start by January 2023.

## Ad 4 4. Other ideas for Danish Sound Cluster activities

Inquiry by SLUSH, <https://fmhslush.events.vrt.be> if DSC is willing to help promote an upcoming event in Finland organized by SLUSH:

*“Slush is coming up soon and together with Yle, Storytek, The Exit Academy and Flanders Investment & Technology, we are hosting a side event at Slush. On November 17th (2.30 – 5 pm) the Audio Networking Event will take place where we focus on the latest topics and innovations in the European AUDIO ecosystem.”*

DSC secretariat will look into this.

## Next meeting

**Wednesday January 18<sup>th</sup>, 2023, 14:00 to 15:00**

## Appendix 1: Participants in the meeting

|                             |                        |                         |
|-----------------------------|------------------------|-------------------------|
| Birger Schneider            | CHAMAJ Consult ApS     | Director/owner          |
| Morten Brandstrup           | TV2 Danmark A/S        | Head of News Technology |
| Nick Dunkerley              | Hindenburg Systems A/S | Creative Director       |
| Stefania Serafin            | AAU-CPH                | Professor               |
| Stina Marie Hasse Jørgensen | ITU                    |                         |
| Pedro Costa                 | Danish Sound Cluster   | Project manager         |
| Torben Vilsgaard            | Danish Sound Cluster   | CEO                     |

## Appendix 2: List of potential Themes

Addressed or proposed in previous meetings' but for the time being put on the list of potential topics until the topics are better matured - or the need better identified.

| #   | Subject  | Background   |
|-----|--|--|
| 11a | <p>"Women for sound engineering"</p> <p>Electronic sound &amp; music, focus on females</p> | <p><b>Background for theme:</b></p> <p>General challenge that we have a poor gender balance in audio areas, i.e. too few females.</p> <p>Events will be inclusive/open to everyone but have an all-female focus/i.e. those who identify as female program. Include female students.</p> <p><i>The topic will be postponed until Shelley is back from maternal leave. For financing, we will need to find financing from other sources than DEB and UFS.</i></p> <p>See details in meeting summary of Meeting #09, 2022-08-30</p> |

### Appendix 3: Working Group Achievements: Completed events, proposed and developed by the working group

| #   | Title   | Comments            | Event type | Date               |
|-----|---|---------------------|------------|--------------------|
| 1   | Creating sound for VR applications  |                     | Webinar    | September 30, 2021 |
| 1   | 'Sound in virtual/augmented reality' (VR/AR)                                  | Workshop at AAU-CPH | Workshop   | February 24 2022   |
| 2   | Dubbing challenges  |                     | Webinar    | March 29, 2021     |
| 3   | 5G technology in Proaudio   |                     | Webinar    | September 2, 2021  |
| 4   | Audio AI – State of the art and perspectives in spoken document understanding |                     | Webinar    | June 16, 2021      |
| 5b  | Bringing creativity into your engineering work                                |                     | Webinar    | April 26, 2022     |
| 6   | Intelligent microphones   |                     | Webinar    | February 23, 2022  |
| 7   | Multichannel headphones   |                     | Webinar    | January 11, 2022   |
| 10a | NGA ADM Immersive delivery  |                     |            | February 8, 2022   |
| 10b | ADM Technology  |                     |            | February 15, 2022  |
|     |   |                     |            |                    |
|     |   |                     |            |                    |
|     |   |                     |            |                    |