

NOISE SIG 2nd Meeting @ CIHT

Attendees and their interests

Jack Harvie-Clark, Apex Acoustics (good practice, establish collaboration, standard, open plan offices, sound insulation);

Torsten Marquardt, University College London (low frequency sound perception, physiology and env. complaints);

Abigail Bristow, University of Surrey (transportation);

Lauren Galbrun, Heriot-Watt University (Soundscape);

Connor Ticknor, AECOM (environmental noise);

Georgia Rodgers, Public Health England, (noise into health);

Lisa Lavia, Noise Abatement Society, (soundscape);

Anna Romanova, University of Greenwich, (green walls, noise perception);

Matt Torjussen, Noise.co.uk Ltd (industrial noise and annoyance);

Bill Davies, University of Salford, (soundscape, noise perception, health);

Jian Kang, University College London, (Soundscape);

Cameron Salisbury, AECOM;

Charlotte Swain, UKAN network manager.

Apologies: Andrew Bullmore (Hoare Lea), Hilary Notley (Defra).

1 Survey findings

AR reported headline findings from the survey of UKAN members (responses 30) to identify challenges and research priorities (see [PowerPoint slides](#)).

Discussion around:

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- Ease of completion – lots of open questions which made it more difficult/were offputting. This is true but at this exploratory stage, it needed to be open.
- Next steps, which could include:
 - o A tick box style survey to identify priorities within given sets
 - o A Delphi survey to be administered to an expert group of stakeholders, to look into the future.
- Possible Questions: (1) identify methods that are better (and evidence based) than the currently widely used / accepted. (2) How you can measure sound that are of interest to you - better?
- Stakeholders might include: environmental health officers, DEFRA (and defra noise group, uk green building housing, RSPB, academics, industry, consultants.

Other sources of evidence were mentioned that could inform the White Paper and survey.

- o ANC survey of member (JH-C to provide)
- o Defra report a few years ago on noise future (can anyone identify?)

CIEH noise survey data published by Public Health England – “Data collated by CIEH on number of noise complaints. Extrapolation determined by DEFRA in association with CIEH. Indicator value calculated by CIEH and Public Health England Knowledge & Intelligence Service (Epidemiology & Surveillance).”
<https://data.england.nhs.uk/dataset/phe-indicator-11401>

ACTION (AR/AB): Design a questionnaire and get requirements from the practitioners (mix qualitative and quantitative) - maybe use Delphi survey. What are the likely solutions?

ACTION (AB): Define / invite key individuals to lead working groups and writing up of parts of White Paper in prioritized areas.

2. Discussion / Knowledge Gaps

Lack of connection between academia and industry.

A number of key standards and measurement methods are up to 40 years old.

Matt commented that the evidence behind Standards is very out of date, resulting in materials being selected because they are simple to apply rather than because effective. The evidence / support data to inform industry practice is out of date.

Big gap exists between soundscape (airports, highway agencies, junctions) practice and researchers.

Very little research on the effect of interventions.

Non-acoustic factors – still a gap in knowledge.

Soft landings programme – J H-C a rare example of obtaining post-occupancy feedback from users.

Big data initiative: Common database of measurements and geo-spread, i.e. case-studies (online system).

Insulation/sound barrier research is not being done.

Singular responses is also an interesting topic, i.e. noise v sound perception and non-acoustic factors perceived as noise.

BD commented that there is no evidence of the effects of noise on mental health yet. This needs a European scale trial/epidemiology and was felt to be beyond our scope.

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A German survey identified non-acoustic factors; how participants felt about their work and colleagues, access to quiet areas concluding that space management is more important than material installations. Typically acousticians are not involved in work-space design.

The Welsh Government's new Noise and Soundscape Policy 2018-2023 explicitly links soundscape outcomes with their recent Planning Policy Edition 10. Joint academic/industry research. Jian and Lisa contributed to the response to this policy submitted by the IOA. The Noise Abatement Society also submitted its own response to the consultation as well.

ACTION (AB): Review DEFRA report, ANC survey, WHO guidance (chapter: implications for research).

ACTION All: share case studies/data on managing noise, including cost benefits of including noise reduction installations and the benefits. (more in Training below)

Action J H-C to share ANC's ranked research priorities/knowledge gaps.

Action BD to encourage the sharing of findings/practitioner's sharing from CIEH 2017 Conference and Stephen Stansfield's data on stringent constraints.

Action: GR to share her 5 page document.

3. Workshop or 'Training Day'

Identify LEARNING POINTS and TAKE AWAYS => Marketing!

The output for this Event is Requirements of practitioners - what do they need from Soundscape? For example, how to make higher sound pressure levels

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acceptable and if there is no way to reduce sound levels how can you make it better? J H-C mentioned David Waddington's (Salford) work.

Needs:

1- Planning & Consultancy - bring together the 'practice' communication gap.

2 - Having engineers and designers involved at the earlier and later stage of the project and be driven by the delivered results.

=> With a view to identify gaps.

Resources by UKAN, timing March (work around the Acoustics 2019 13th -14th May).

Action: Jack, Lisa, Jian to develop ideas and propose a workshop/training day to be run by the SIG in March 2019.

Action: Torsten to send details of Effects of Ultrasound on Health Event to AB and CS to load onto UKAN website

All - share small project case studies including the Transport for London projects that informed Mayor's Transport Strategy (co-created applied research conducted by Jian, Lisa and a team of researchers and collaborators).

Populate UKAN's website Resources section pre and during this event.

4. Research Proposals

Develop a common method of measurements for specific scenarios. What is a useful measure?

What is a Research Question: What data do we need for the database and how much of this data? Is a snapshot be of any value or we need series of data over time.

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Acoustic vents - will people use them?

Smart data collection from new houses (i.e. Broken Circuits, open window), collect temperature data, energy consumption and air quality.

J H-C suggests - indoor soundscaping - a role for acousticians in workplace design - how can you use the principles to change your work?

Laurent How to use water features for masking.

Materials opportunities also - early stage testing, cost benefit

5. White Paper

Name: Environmental Noise

Aimed at future researchers - what is going on in Noise research currently - not that much. Identify knowledge gaps.

Look at evidence base on sources, impacts, perception, interventions and if they are assessed for effectiveness.

Refer to notes: - [Template and Guidance](#)

Who are we writing it for (?): Env Health, UK Green Building Council, Public Health, Wildlife, (BD mentioned NERC).

Should be written by an Industry based person.

Make it media compliant, perhaps use 'Learning Glass' to promote the paper in 3min.

Use WHO guidance on noise as a baseline.

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Action AB/AR to develop an outline for discussion and then approach individuals to write sections.

Outreach:

ACTION (All/CS): Identify topics for creating new 'learning glass' videos to share knowledge via UKAN website. Information An example video will be shared. Note: The technology is available at Sheffield Uni. soon. Perhaps a short film on the need to revisit surface noise calculations (suggested by Matt) is a good place to start with a short film using the Learning Glass? Or carefully worded discussion of Soundscape Standards, providing a framework but is context dependent, the anecdotal examples of better practices/approaches but acknowledging the limited back up evidence of these new methods. Jian and Lisa to perhaps do this jointly, identifying empirical examples and drawing evidence from different disciplines. Inviting practitioners to justify the routes they took to calculate environmental impact. Soundscape is being approached by airports, HS2, and smaller traffic management projects. The Noise Abatement Society's annual awards, supported by the IOA, one of which was presented to Ealing Council and National Grid, including non-acoustic factors were cited - aural engagement, psychoacoustic measurement, including visual elements and engaging communities, delivering soundscape based and management based approaches. The rigorous information on why these solutions work is absent.

Potential match funders - Arts Council, high end clients such as HS2

Design acoustic experiences and gain subjective opinions/gather data

Examples: Peter Cusack's 'Favourite Sound' work was mentioned, 100.s of What's and Why' which he records - very engaging CD available. Also London Sound

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Survey - a website to click on and listen. Archive records at British Library - save our sounds.

Wellcome Collection's This is a voice - immersive exhibition- learn how your voice works.

ASMR has a huge audience via the internet - a self selecting population.

Suggestions for outreach/installation

A version of the 'little meeting space'*

Public/urban spaces - make them sound better, improve quality of life, simultaneously drawing attention to noise pollution and raise awareness of magnitude of noise and acoustics

STEM - Connor delivers a popular session for year 4's and it is adapted to A Level students.

*Laurent invites visits to his labs - create a structure to replicate it in so public can have an experience. Use sculpture / structure to attract people to enter and get an experience.

Sonic tunnel suggested by J H-C (creating quiet to trigger questions like 'how do you do that'? Are the sounds we have the sounds we want? What sounds do we want?

Create two contrasting environments as conversation triggers.

6. AOB

Proposal to amend SIG name to "Noise and Soundscape" accepted.