

**Notes of a meeting held on the 15<sup>th</sup> of May 2014 at Defra, Nobel House, London SW1P 3JR, London.**

**Present:** Bernard Berry (BEL Acoustics), Keith Attenborough (IoA), Kirill Horoshenkov (Chair, University of Sheffield), Jian Kang (University of Sheffield), Ray Kirby (Brunel University), Benjamin Fenech (PHE), Stephen Turner (Defra), Shahram Taherzadeh (Open University), Olga Umnova (Salford University).

**1. Apologies:** Abigail Bristow (Loughborough University), Constantin Coussios (University of Oxford), Alan McAlpine (ISVR), Hilary Notley (Defra), Eleanor Stride (Oxford University), Duncan Williams (DSTL), Bajram Zeqiri (NPL).

**2. Report on the minutes of the 15<sup>th</sup> of October 2013 meeting**

Prof. Peter Thorne (Liverpool University) has resigned as a Tier 1 member of the RCC. The Committee has accepted his resignation.

The report of the meeting held on the 15<sup>th</sup> of October 2013 was agreed as an accurate record.

The meeting welcomed Dr. Benjamin Fenech (**BF**) and Dr. Olga Umnova (**OU**). Dr. Fenech is the newly appointed Principal Noise and Health Specialist at the Public Health England. Dr. Umnova has joined the Committee as a Tier 1 member.

Stephen Turner (**ST**) has not yet had the opportunity to talk to Prof. Ian Boyd of Defra and Katie Clark of RCUK. **ST** will find the opportunity to contact them and talk about the importance of joint efforts between various government bodies to support the acoustics related research in the UK.

**Action ST**

Kirill Horoshenkov (**KH**) is yet to talk to Prof. Philip Nelson regarding the role of networking in his large EPSRC Programme Grant and to find out more about the outreach objectives of this grant and how it might help to promote acoustics as a research discipline.

**Action KH**

**OU** has agreed to act as IoA coordinator to facilitate better links between the Physical Acoustics Group at the Institute of Physics and members of the IoA who work in the area of physical acoustics. **KH** suggested that **OU** may wish to talk to Eleanor Stride and Constantin Coussios of Oxford University who can help to facilitate this link.

**Action OU**

An issue was raised about the presence of the RCC on the updated web site and the nature of any material which the Committee should provide for the updated website. **KA** proposed that the IoA should repeat the survey among their members asking them about the details of their research activities and details of their research grants. **KA** suggested that there should be a search option on the IoA website to identify IoA members' research areas and grants. **KH** suggested that one way to keep this information up-to-date is to link a part of the RCC page of IoA to RCUK database so that corresponding RCUK

summary of any new grant awarded to an IoA member would be automatically linked to the IoA website. **KH** will speak to Linda Canty and Charles Ellis about this issue.

**Action KH**

### **3. Defra**

#### **3.1 Update on Defra's research programmes on noise**

**ST** reported that Defra was forced by the European Commission to focus its resources on air quality - a decision which has seriously diverted the Agency from noise. Defra may be still able to finish the Noise Attitude Survey study this summer, but as a result of the policy change within Defra, there is literally no new research on noise this year and, probably next year as well. **BF** commented that Defra may consider the possibility of tapping into some Masters programmes in the UK to carry out noise projects for which the Agency has no resources at the moment. **KA** asked about any new Defra activities related to airport expansion in the UK. **ST** responded that a bulk of this work is handled by the DfT. The situation remains challenging at the moment. **ST** notes that the departments which can still have the money are those who cause noise, e.g. transport.

#### **3.2 Cooperation between Defra, PHE and Research Councils**

**BF** gave an introduction to the history of his appointment at PHE in December 2013. He noted that PHE has no track record in research on noise effects on health. However, he stressed that there are a few key academic and non-academic players in the UK in this area. One of the actions for his work at PHE is to promote more research in this area with support from the relevant Research Councils. A main business case here will be to change the focus from treating the consequences of noise exposure to the early prevention of public health effects from unwanted noise. Improved well-being and its relation to noise can be the basis for more research in this area. **BF** suggested that his intention is to bid for a platform grant with several key academic players in the UK. This may also involve non-academic stakeholders such as HS2, Heathrow and Defra.

**ST** suggested that the Defra's interest in this work is to use the research to develop a better policy to protect public health. He noted that the word "reduce" in relation to noise has been replaced with the word "manage" – this may be an important change in paradigm with respect to noise control. **KA** noted that the Research Councils are not very good in funding long-term research which is apparently needed to understand better the effect of noise on public health. **KH** replied that there have been precedents where 5-year platform grants have been renewed to run for longer than 15 years. In respect to talking to the RCUK, **BF** commented that he would like to hold back from talking to anyone in any of the Research Councils until he has got a strong case and arguments for the need for more funding in this area. **BF** noted that compared to other environmental and lifestyle factors which can affect health (e.g. diet, smoking, exercise), noise effects are perceived to be relatively small so that we compete against stronger players. Bernard Berry (**BB**) commented that there is a business case already which can warrant more studies of the aircraft noise effects on public health.

**KA** has mentioned that considerable amount of research which the Research Councils/BIS fund is aligned with research priorities established through consultations with key academic and non-academic stakeholders. He suggested that the PHE is now in a good position to begin to lobby the research funding bodies in an attempt to persuade them that noise and health should be treated as a one of their priority areas. **KH** suggest it is good time for PHE (**BF**) to start discussions with Katie Clark of the RCUK. **ST** suggested that it is very important to support research which aims to find a direct correlation between the noise exposure and well-being which can be related to subsequent health effects and ways to manage

these effects. **ST** commented that getting together a dozen of key players from academia and industry with a clear idea for more need for research on noise and health will be sufficient to deliver a strong message to the RCUK that this is an area they need to support. **BF** agreed to approach the key players in this area, come up with a list and organise a meeting among them in the near future.

**Action BF**

### **3.3 Opportunities for Defra/PHE leading funding calls under the EC Horizon 2020 programme**

**KH** informed the Committee that there is €70B of research funding is available through the EC Horizon 2020 Programme. He noted that the calls are often based on the priorities established at meetings between the EU officials and key academic and non-academic players. He suggested that PHE should get in touch with Horizon 2020 officials to find out how their research priorities fit the funding calls and whether there is an opportunity to issue new calls aimed to support research on noise effects on well-being and health. **ST** supported this idea. He suggested that there should be a balance of nationalities who sign up to collaborate on these calls. **ST** noted that there must be agencies in other countries of Europe equivalent to PHE who are enthusiastic about research in this area and that it would make sense to communicate with them before approaching the EC. **BF** noted that PHE is targeting the UK's population, therefore UK based funding is preferable. **ST** and **BF** agreed to collaborate on this matter.

**Action BF/ST**

**KH** suggested that Prof. Stephen Stansfeld (**SS**) would be a good contact to discuss the way forward with the EC bid. **BF** noted that he is meeting **SS** in July 2014 and he agreed to discuss this matter with **SS**. **KH** suggested that getting a relevant 3-5 year EC grant awarded to a consortium of the right academic partners will help Defra to cope with the shortage of funding for noise related research. Such a grant would enable the consortium to appoint the right research staff at one or several cooperating academic institutions to help to analyse Defra's data and to work on related policy issues. **ST** suggested that some of this work can be related to the issues raised in the report on quiet areas published recently by Defra. **KH** has agreed to send the list of relevant calls issued by the EC Horizon 2020 Programme.

**Action KH**

**KH** asked **BB** regarding his view on the need for more research into noise and health. **BB** responded that aircraft noise from expanding airports effecting general public health, including childrens health, will remain an important topic. He made reference to the medical record based work on Heathrow Airport noise done by the Imperial College suggesting that this is kind of research deserves follow-on funding. He suggested that a good place to discuss specific areas of future work would be ICBEN (International Congress on Noise as a Public Health Problem) in Nara in June 2014. [At this conference Wolfgang Babisch (Federal Environment Agency, Germany) suggested in his keynote address to the conference that there is a clear need to study long-term effects of noise on health. **KH**]

**Action KH**

## **4. Research funding**

**KH** presented the Committee with the updated summary of the UK's funding for the acoustics-related research obtained through the RCUK site. This shows that the current value of the 223 research grants related to acoustics, audio technology and ultrasonics amounts to approximately £120M. This is approximately a 4-fold increase since 2010 (except funding for noise research which is down by 21%). He suggested that it would be difficult to argue with the Research Councils that this area of research is not well-funded. **KH** expressed concern that there are not enough students studying acoustics at the UG /PG and PhD levels to service this number of grants. Therefore, the appointment of research staff on these grants is likely to depend on the supply from outside the UK. This situation presents a potential

problem for the future of acoustics related research in the UK if this situation continues. This view was shared by **KA**.

**KH** noted that the number of publications on acoustics and ultrasonics co-authored by researchers from the UK has been stagnant since 2009-2010. A similar situation is in Germany, France and USA. In China the number of publications related to acoustics and ultrasonics has gone up by 65% over the same period. **KH** reported that he shared these data with the Director of ISVR, Prof. Paul White, Prof. Constantin Coussios of Oxford University, Prof. Michael Volander of the Institute of Technical Acoustics (Germany), Prof. Olivier Dazel of the Université du Maine (France) and Luc Jaouen of Matelys (France).

All agreed that there is a need for better training of students and junior staff to work in acoustics-related research. Dr. Ray Kirby (**RK**) commented that this issue is not unique to acoustics and similar situation exists in other areas of engineering whereby there is a clear lack of UK-based applicants trained and willing to do research. **KH** argued that many mainstream areas of engineering have better provision of courses from which potential students and staff can be drawn to engage in research. **RK** argued that we need better evidence to show the impact of the lack in provision of courses in acoustics on the quality of acoustics-related research.

**KH** suggested that there is a need to team up the academia with instrument and software providers to set up short courses for students and junior staff in the UK universities who lack the basic research skills in acoustics. This could be funded through a Network Grant or Centre for Doctoral Training. Another route may be recycling the recent COST proposal put together by **OU** which was unfunded. These three routes would require strong industrial support and it is necessary to identify the deficiencies in the existing training programmes. **KH** noted that his preliminary discussions with B&K (UK) suggest that a researcher training initiative is likely to get strong non-academic support. **KA** suggested that a summer school in acoustics for researchers tailored by their research supervisors and delivered by the top experts in the area would be an attractive option to sell to a funding body. **OU** suggested that it is important to find out more about the demand for these courses.

**KH** reported that the outcome of his recent conversation with Daniel Smith of EPSRC suggests that the Council will be willing to consider a Network Grant application in this area. **OU** and **KH** agreed to explore these options together with the Oxford's and ISVR's teams and find out more about existing and potential demand for them.

**Actions KH/OU**

## **7. Next meeting**

11am on the 6<sup>th</sup> of November 2014. The venue is Defra in London. The precise location to be confirmed.