

## Workshop 1: Measuring noise in oceans: towards a convergence?

Coordinators: *Héloïse Berkowitz and Hervé Dumez (Ecole polytechnique, i3)*

Underwater noise is becoming a major environmental issue. To act and protect the marine life, the first step is to measure that noise, both the noise sources and the status of underwater noise in the maritime areas. Different approaches have been developed. The objective of the workshop is to synthesize and to give a state of the art of these different methods, and to investigate how we could converge to a standardized measurement systems and techniques, efficient and cost effective.

### *Program of the Workshop*

The workshop is scheduled over one day (9<sup>th</sup> of February, 2016), at the **French Ministry of Research, 1, rue Descartes, 75005 Paris, room Stourdzé:**

8h00: welcoming participants and coffee

8h30-8h45: i3 presentation

8h45-9h: European officer presentation of the challenges for regulation (Lydia Martin-Roumégas, *European Commission, Environment*)

#### **1st session**

9h-9h20: AQUO Project presentation (Raul Salinas, *TSI*, and Thomas Folégot, *Quiet Oceans*)

9h20-9h40: BIAS Project presentation (Peter Sigray, *FOI-BIAS*)

9h40-10h00: SONIC Project presentation (Victor Humphrey, *University of Southampton, UK*)

10h00-10h15: Comments from moderator (Jean-Philippe Pagot, *EDF EN*)

10h15-10h45: General discussion

*10h45-11h00: break*

#### **2nd session**

11h00-11h20: JIP E&P Sound and Marine life presentation (Roy Wyatt, *Seiche Measurements*)

11h20-11h40: NeXOS (Eric Delory, *Plocan-NeXOS*)



11h40-11h50 : Comments from moderator (Céline Rousset, *DCNS*)

11H50-12h15: General discussion

*12h15-13h30: Lunch*

### **3rd session**

13h30-13h50: IEC presentation (Brian Polagye, *IEC*)

13h50-14h10: ISO presentation (Christian Audoly, *DCNS*, and Stephen Robinson, *National Physical Laboratory, UK*)

14h10-14h20: Comments from moderator (Guillaume Babin)

14h20-14h50: General Discussion

*14h50-15h00: Break*

15h00-16h00: Final discussion and synthesis

A presentation is meant to last 20 minutes. Each session is followed by a commentary from a moderator (20-30-minute long) and concluded by a general discussion with the attendees (15-minute long).

The aim of the workshop is to address the three following points: measurement of the source levels, local measurement of underwater sound, and mapping models of the sound in a zone. The presentations will have to address at least one of these three issues.

Moderators can be from the regulating bodies (Ministry of the Environment, European Commission), from industries (oil & gas industry, marine renewable energies, shipping, etc.) or experts.

The final session is introduced by a presentation synthetizing the discussions of the day and outlining the way ahead for a possible convergence. The debate then consists of transversal issues.



**Participants:**

**Presentations from experts:** AQUO, BIAS, IEC, ISO, JIP E&P, NeXOS, SONIC

**Speakers and discussants:** European Commission, Oil & gas industry, Marine Renewables industry, acoustics expert.

**One or two marine life specialists**

**Representants of stakeholders:** World Ocean Council, NRDC, NOAA, etc.

**Coordinators of the working group:** Héloïse Berkowitz (Ecole polytechnique, i3) and Hervé Dumez (Ecole polytechnique, i3)

**Working group:** Christian Audoly (DCNS Research), Eric Baudin (Bureau Veritas), Fabian Muniesa (Mines ParisTech, chairman of the Observatory for Responsible Innovation), Aldo Napoli (Mines ParisTech), Céline Rousset (DCNS Research), Christine Valentin (World Ocean Council)

**Global calendar:**

Workshop 1 on measurement: **9th February 2016**

Workshop 2 on impacts on marine life: **10 March 2016**

Workshop 3 on solutions and regulation issues: **April 2016**

International conference: **Sept 2016**

