



## **Racket in the oceans and responsible innovation**

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### **Workshop 3: Innovative solutions: technologies and management & regulatory tools**

Many innovations are under development or deployment to reduce underwater noise footprint of ships, oil and gas exploration or pile driving. This workshop aims to summarize and present most innovative technologies in different sectors. It will also present management and regulatory tools designed to better implement these innovations.

#### ***Program of the Workshop***

The workshop is scheduled over one day (17<sup>th</sup> of May, 2016), at Mines ParisTech, **60 Boulevard Saint-Michel, 75006 Paris, room V115-V116:**

8h30-9h00: welcoming participants and coffee

#### **1<sup>st</sup> session: Innovations in ships**

9h00-9h20: “**Noise & Vibration Comprehensive Management: The proven engineering tool to built silent ships**”, Publio Beltrán (*TSI*)

9h20-9h40: “**Reducing Underwater Noise from Ships – An Overview of Basic Requirements and Estimated Costs.**”, Jesse Spence (*NCE*)

9h40-10h00 : “**Mitigation of Propeller Cavitation Noise with Air Ejection**”, Marko Hyensjö (*RollsRoyce*)

10h00-10h20 : “**STX approach to ship underwater radiated noise management**”, Stéphane Cordier (*STXFrance*)

*10h20-10h40: Break*

#### **2<sup>nd</sup> session: Renewable Marine Energies**

10h40-11h00: **Managing noise during construction work in offshore wind farms**  
Céline Dam Hieu (*EDF EN*)

11h00-11h20: **IHC Noise Mitigation System, R&D trajectory and regulatory issues**, Henk van Vessem (*Royal IHC*)



### **3<sup>rd</sup> session: Oil and Gas industry**

11h20-11h40: **Continual improvement in Exploration and Production**, John Campbell (*IOGP*)

11h40-12h30: **Morning General Discussion**

*12h30-13h30: Lunch Break*

13h30-14h00: Visit of the Minerals Museum

14h00-14h20: **Real-time automated noise monitoring and marine mammal detection to mitigate anthropogenic sound sources**, Michel André (*UPC*)

14h20-14h40: **A methodology to quantify underwater noise mitigation solutions**, Eric Baudin (*Aquo, Bureau Veritas*)

*14h40-15h00: Break*

15h00-15h20: **A French Nature conservation perspective on underwater sound and marine species: from anthropogenic threats to mitigation techniques and indicators of ecosystem health**, Sylvain Michel (*AMP*)

15h20-15h40: **“Implementing MSFD Descriptor 11 at OSPAR and in the UK”**, Nathan Merchant (*Cefas*)

15h40-16h30 : **Final Round Table**

The aim of the workshop is to give a state of the art on the innovative solutions, both technologies and management & regulatory tools. A presentation is meant to last 20 minutes. The morning session will be concluded by a general round table with the audience. The final session concludes the day with a presentation synthetizing the discussions of the day and outlining the main issues.

#### **Global calendar:**

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

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

Workshop 3 on solutions and regulation issues: **17<sup>th</sup> May 2016**

International conference: **Sept 2016**