

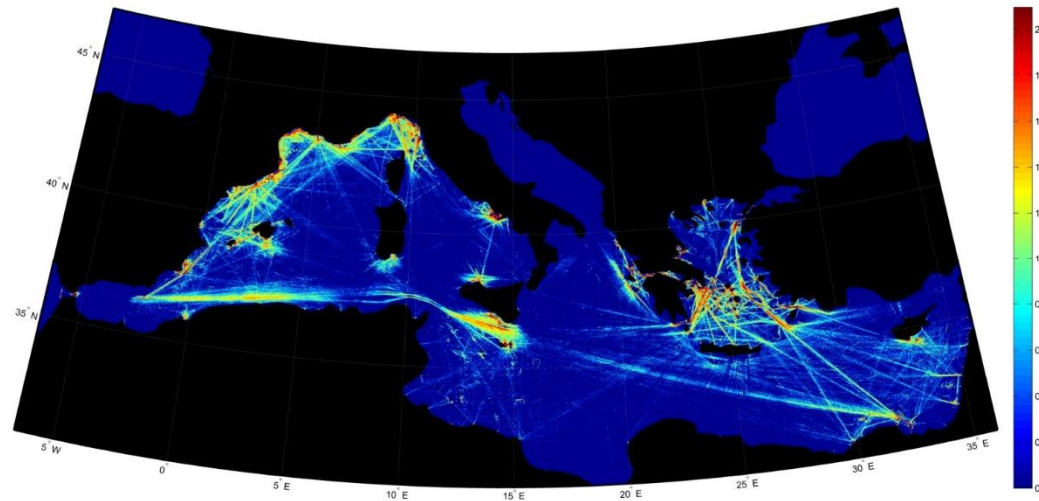
ACCOBAMS guidances regarding O&G seismic surveys and MPAs

Florence DESCROIX-COMANDUCCI
ACCOBAMS Executive Secretary



Context

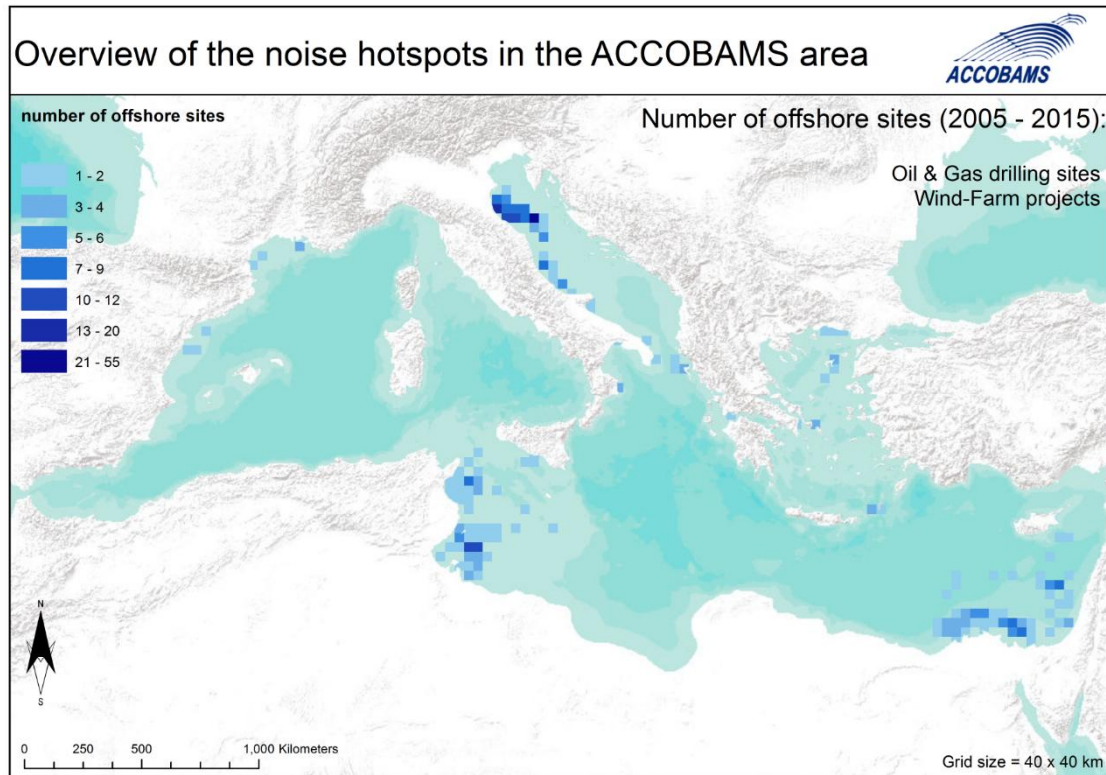
Main Sources of marine noise pollution



Marine Traffic

Context

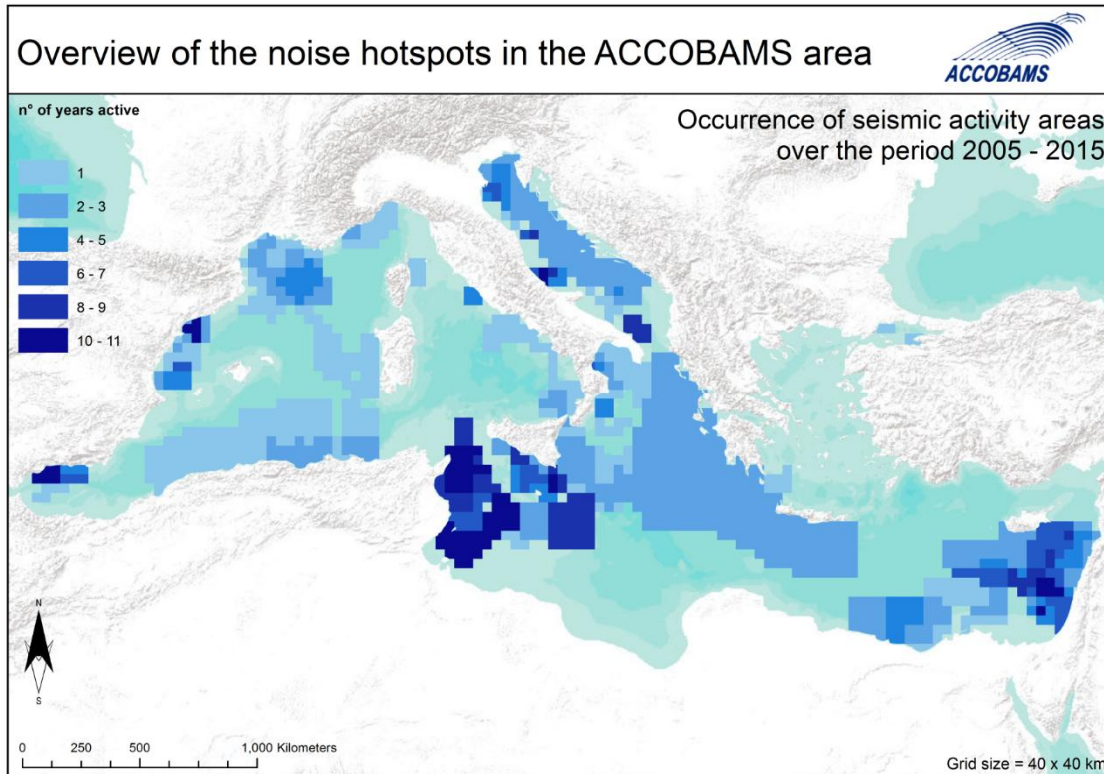
Main Sources of marine noise pollution



Offshore construction works

Context

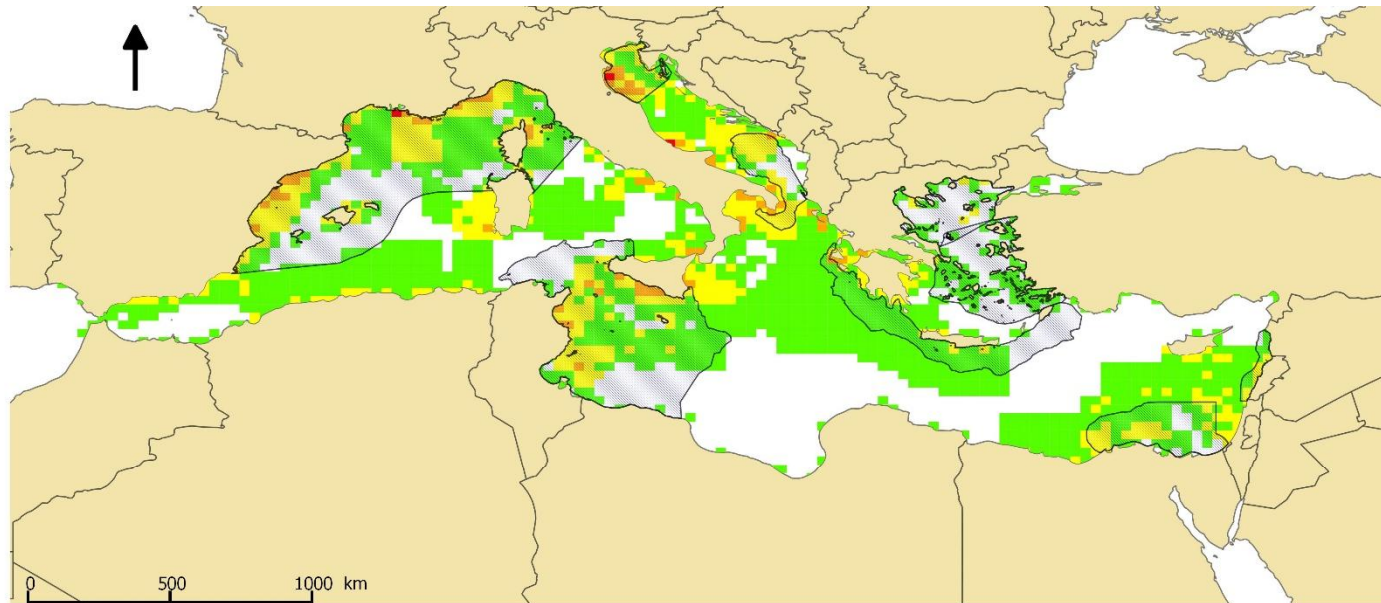
Main Sources of marine noise pollution



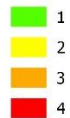
Seismic Surveys

Context

Main Sources of marine noise pollution



Number of noise sources*



Cetacean Habitats

Areas identified by the CBD Parties as meeting the EBSA criteria, which include Cetacean Habitats among the elements for their justification

Cetacean Habitats



* Source: ACCOBAMS 2016. Overview of the noise hotspots in the ACCOBAMS Area part I – Mediterranean Sea. Final Report. By Maglio, A., Pavan, G., Castellote, M., Frey, S. 45 pages. DOI: 10.13140/RG.2.1.2574.8560
Please note that this report is still not endorsed by ACCOBAMS Parties, since it will be presented to Parties during the MOP6 (22-25 November 2016, Monaco)

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Context

Impact of underwater noise on marine organisms

PHYSIOLOGY

- Lesions of the internal organs, especially to the brain
- Disturbed perception: masking of the communication

BEHAVIOR

- Change in direction and/or habitat
- Increase of the stress: modification of usual behaviors

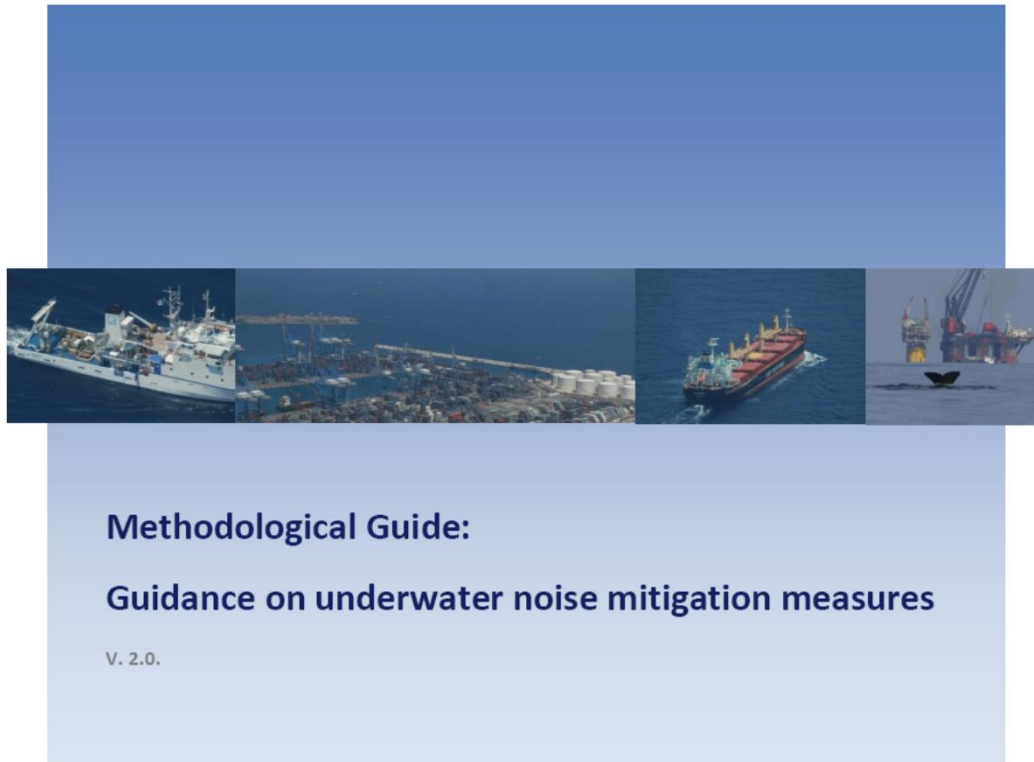
Challenges / Perspectives

Guidelines to address the impact of anthropogenic noise on cetaceans in the ACCOBAMS area

- propose **best practices to be employed for each noise-producing human activity at sea**, in particular for high power sonar and for seismic surveys and airgun uses
- sonar surveys be planned so as to **avoid key cetacean habitat** and areas of cetacean density

Challenges / Perspectives

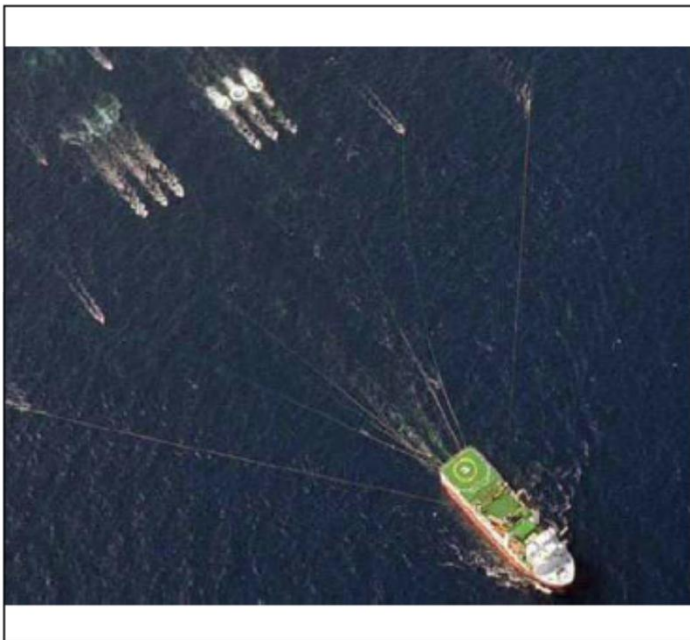
- ACCOBAMS Methodological Guide : Guidance on underwater noise mitigation measures



Challenges / Perspectives

- ACCOBAMS Methodological Guide - Guidance on underwater noise mitigation measures

SEISMIC SURVEYS



The airgun is presently the most employed technology for carrying out marine seismic exploration. Such surveys are pervasive worldwide, in shallow and deep water as well as in coastal or offshore environments.

Source level* 220 – 262 dB re 1 μ Pa m (P-to-P)
Bandwidth 5 Hz – 100 kHz
Major amplitude 10 Hz – 120 Hz
Duration 10 – 100 ms
Directionality Downwards *ref: CEDA 2011; OSPAR 2009*

Seismic surveys should not take place in the Areas of Special Concern for Beaked whales (p.18), where strict measures need to be applied.

Challenges / Perspectives

- ACCOBAMS Methodological Guide - Guidance on underwater noise mitigation measures

Mitigation Framework for seismic surveys	
<p>Planning phase (expected outcomes of an EIA)</p>	<ol style="list-style-type: none"> 1. Consider the adoption of alternative technologies (p. 11) 2. Review the presence of cetaceans in the candidate periods for the survey and carry out or fund research where the information is non-existent or inadequate 3. Define no-survey zones (biological reserves, especially protected areas etc.) 4. Select periods with low biological sensitivity 5. Use sound propagation modelling to define the extent of the exclusion area (EZ)
<p>Real-time mitigation practices (p. 12)</p>	<ol style="list-style-type: none"> 1. Use the visual monitoring protocol* 2. Use the acoustic monitoring protocol* 3. Use the soft start protocol
<p>Post-activity</p>	<ol style="list-style-type: none"> 1. Detailed reporting of real-time mitigation**

Challenges / Perspectives

- ACCOBAMS Methodological Guide - Guidance on underwater noise mitigation measures

Mitigation Framework for seismic surveys	
<p>Planning phase (expected outcomes of an EIA)</p>	<p>Strategic Impact Assessments, Environmental Impact Assessments Relevant assessments prior to plans, programmes or projects</p>
<p>Real-time mitigation practices (p. 12)</p>	<ol style="list-style-type: none"> 1. Use the visual monitoring protocol* 2. Use the acoustic monitoring protocol* 3. Use the soft start protocol
<p>Post-activity</p>	<ol style="list-style-type: none"> 1. Detailed reporting of real-time mitigation**

Challenges / Perspectives

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<p>Real-time mitigation practices (p. 12)</p>	<p>Use of MMO / PAM Implementation of an ACCOBAMS certification for highly qualified Marine Mammals Observers</p>
<p>Post-activity</p>	<ol style="list-style-type: none"> 1. Detailed reporting of real-time mitigation**

Challenges / Perspectives

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<p>Post-activity</p>	<p>Report on a standard form</p>

Recommendations

Managing for seismic exploration	MPA managers should be informed of the occurrence of airgun operations involving noise potentially affecting their area
	Environmental Impact Assessments should be performed independently from the industry
Avoidance of sensitive areas	Appropriate Exclusion Zones should be delineated around MPAs.
Operational procedures	<ul style="list-style-type: none"> • soft start • minimising airgun sound propagation • restrictions of airgun use • operational shut-downs • detection and real-time mitigation procedures (visual and acoustic)

Thank you - Merci

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