

The AQUO consortium

Led by DCNS, it involves 13 partners including ship industry, specialised companies, a classification society, research centres and academics. 8 European countries are represented.

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|  | DCNS SA | France |
|  | TÉCNICAS Y SERVICIOS DE INGENIERÍA, S.L. | Spain |
|  | BUREAU VERITAS | France |
|  | UNIVERSITAT POLITECNICA DE CATALUNYA | Spain |
|  | QUIET-OCEANS SAS | France |
|  | SSPA SWEDEN AB. | Sweden |
|  | UNIVERSITÀ DEGLI STUDI DI GENOVA | Italy |
|  | UNIVERSITY OF STRATHCLYDE | United Kingdom |
|  | CANAL DE EXPERIENCIAS HIDRODINAMICAS DE EL PARDO | Spain |
|  | CENTRUM TECHNIKI OKRETOWEJ SPOLKA AKCYJNA | Poland |
|  | STICHTING DIENST LANDBOUWKUNDIG ONDERZOEK | Netherlands |
|  | TOTALFORSVARETS FORSKNING-SINSTITUT | Sweden |
|  | COMMUNITY OF EUROPEAN SHIPPYARDS ASSOCIATIONS ASBL | Belgium |

«What quiet, what silence, what peace!»

Jules Verne's
«Twenty Thousand Leagues Under the Sea»

That was in 1870.
Today, the situation is different.
What about tomorrow?



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www.aquo.eu

AQUO project
7th EC Research Framework Program
Grant agreement n° 314227

AQUO

Achieve QUIETER Oceans
by shipping noise footprint reduction



A Collaborative European Research Project of the 7th Framework Program, in the scope of theme "Sustainable Surface Transport", topic coordinated with the "Oceans of Tomorrow"



ISSUES



Maritime traffic and industrial activity at sea has increased steadily, causing underwater noise with impact on marine fauna.

Legislative instruments must be developed with regard to marine acoustic pollution for the protection of marine biodiversity.

AQUO OBJECTIVES



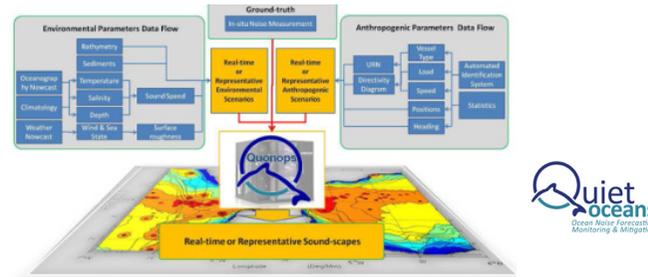
- Design solutions to reduce ship underwater radiated noise (without affecting the fuel efficiency) and mitigation measures for the impact on the marine environment
- Practical guidelines to reduce shipping noise for a quieter ocean, providing responses to the needs of policy makers

AQUO IMPACTS

- New technologies for measuring, monitoring, predicting and controlling underwater radiated noise.
- Solutions and guidelines targeted at maritime stakeholders and authorities.
- Consistency with the Marine Strategy Framework Directive.

WP1 Noise footprint assessment

Provide ocean noise forecasts as a decision aid tool will lead to the evaluation of noise footprints of maritime shipping and help regulators to assess the risks towards marine life.



WP3 Noise Measurements

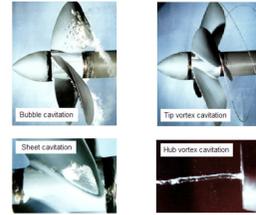
- New measurements tools and methods for experiments at sea (including cavitation detection and characterization).
- Proposal of a European standard for underwater radiated noise measurement procedures to fill the gap in existing standards.

On-site Measurements



WP2 Noise sources

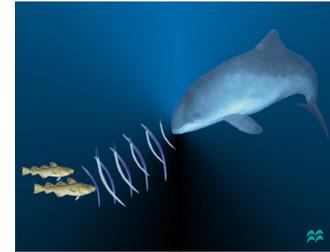
Improvement and validation of models and methods to predict radiated noise from ship propellers, accounting for cavitation and interaction effects.



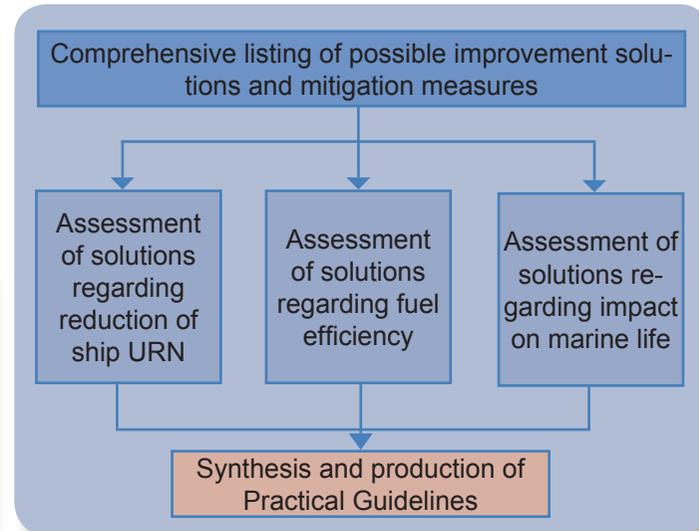
WP4 Sensitivity of Marine Life

Bioacoustics experiments and derivation of criteria for noise protection of marine life.

Activity supervised by an internal ethical board and an external ethics expert.



WP5 Guidelines to reduce shipping noise footprint



WP6 Dissemination & Exploitation

WP7 Management

