Interreg North Sea

Co-funded by the European Union

DEMASK

Development and evaluation of noise management strategies to keep the North Sea healthy

Background:

After the successful completion of the Jomopans project in 2022 a successor project has started in January 2024. The DEMASK project is partially funded by Interreg North Sea and is planned to run for three year.

Objective:

DEMASK aims to bring together policy makers, NGOs, and the maritime industry in the management of the underwater soundscape of the North Sea. The project will enable stakeholders to take measures that contribute to a well-managed soundscape and strengthen the marine ecosystem. DEMASK will develop an approach for defining policy scenarios for underwater noise management and a method to quantify the effectiveness of those scenarios to mitigate noise pollution and its effects on marine life.

So DEMASK will:

- Develop policy scenarios for a well-managed soundscape
- Evaluate these all the way through effects on marine biodiversity
- Select an appropriate noise management strategy

Importance:

The North Sea is one of the busiest shipping areas in the world, shared with other human activities such as fishing and tourism. With ambitious plans to produce energy from offshore wind farms, major changes will occur in the North Sea in the next decades. The marine ecosystem is at risk of being impacted by all these human activities, making it crucial to manage the sea more sustainably.
The need to manage seas sustainably has been recognized in the UN Sustainable Development Goals, the UN Ocean Decade and is reflected in a number of EU policies, including the Marine Spatial Planning Directive (MSP) and the Marine Strategy Framework Directive (MSFD). Underwater noise is recognized as a pollutant in the MSFD, and EU member states are mandated to monitor and mitigate noise pollution as part of their efforts to obtain Good Environmental Status. Underwater noise is an important topic for the Regional Sea Conventions for the North East Atlantic (OSPAR) and the Baltic Sea (HELCOM). OSPAR and HELCOM work closely together on this topic.

Target audience:

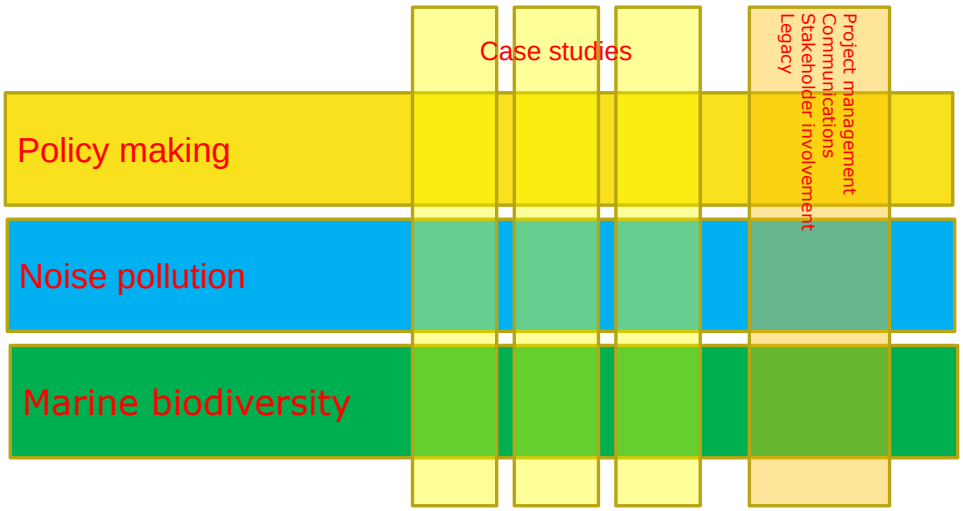
For DEMASK stakeholder involvement is a crucial part of sustainable management of underwater noise. The project targets various stakeholders involved in the MSP, MSFD, and other processes to protect the marine environment.

- National government authorities will benefit from the scenario study results. It provides them with insights on the effectiveness of noise management strategies.
- International organisations that will develop policy options for the marine environment, like regional sea conventions (OSPAR and HELCOM) and IMO (International Maritime Organisation).
- Marine engineers will gain data and knowledge on little studied sound sources, like operational wind farms. This allows them to improve and validate their soundscape models.
- Marine biologists will expand their knowledge and tools related to the effects of noise on marine biodiversity. This allows them to evaluate risk-of-impact.
- Environmental NGOs will benefit from stakeholder engagement and communication as an incentive for impactful change.

DEMASK already interested various parties of policy makers, NGOs, and the maritime industry, as well as other initiatives and organizations that are active in the field of underwater noise, to support the project.

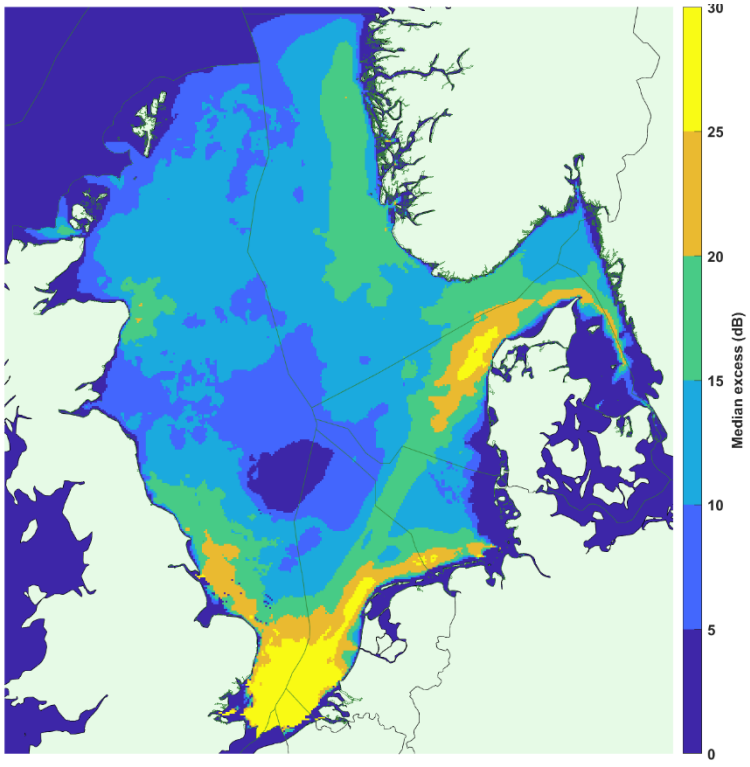
Project activities:

DEMASK consists of three work packages on policy making, evaluation of noise pollution and the effects on marine life.
The first work package focusses on developing scenarios for noise management in close collaboration with a wide range of stakeholders. Difference scenarios will be tested against a base scenario and the effect on the noise pollution will be evaluated and discussed with the stakeholders. Some specific case studies will be chosen to illustrate noise for different regions and sound sources.
The second work package works on the quantification of the scenarios to come up with soundscape maps that describe the pressure of underwater noise on the marine environment. Unlike Jomopans DEMASK will endeavour to include all major sources of underwater noise and not just shipping.
The third work package looks how to use the effects of noise on marine life and how these effects can be used by marine policy makers.



Overarching over the work packages the choice of the pilots is binding the packages together.

DEMASK will communicate the results to professionals as well as non-professionals in this working field. Co-operation is sought with sister projects in related work areas and with the scientific community.



Result from Jomopans project.

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DEMASK Project partners

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Rijkswaterstaat – lead partner (Netherlands)

Bundesamt für Seeschifffahrt und Hydrographie (Germany)

IVL Svenska Miljöinstitutet (Sweden)

JASCO Applied Sciences (Germany)

Institut Royal des Sciences Naturelles de Belgique (Belgium)

Stichting de Noordzee (Netherlands)

Nederlandse Organisatie voor Toegepast-natuurwetenschappelijk Onderzoek (Netherlands)

Stiftung Tierärztliche Hochschule Hannover (Germany)

Vlaams Instituut voor de Zee (Belgium)