Development of the Impulsive Noise Register System

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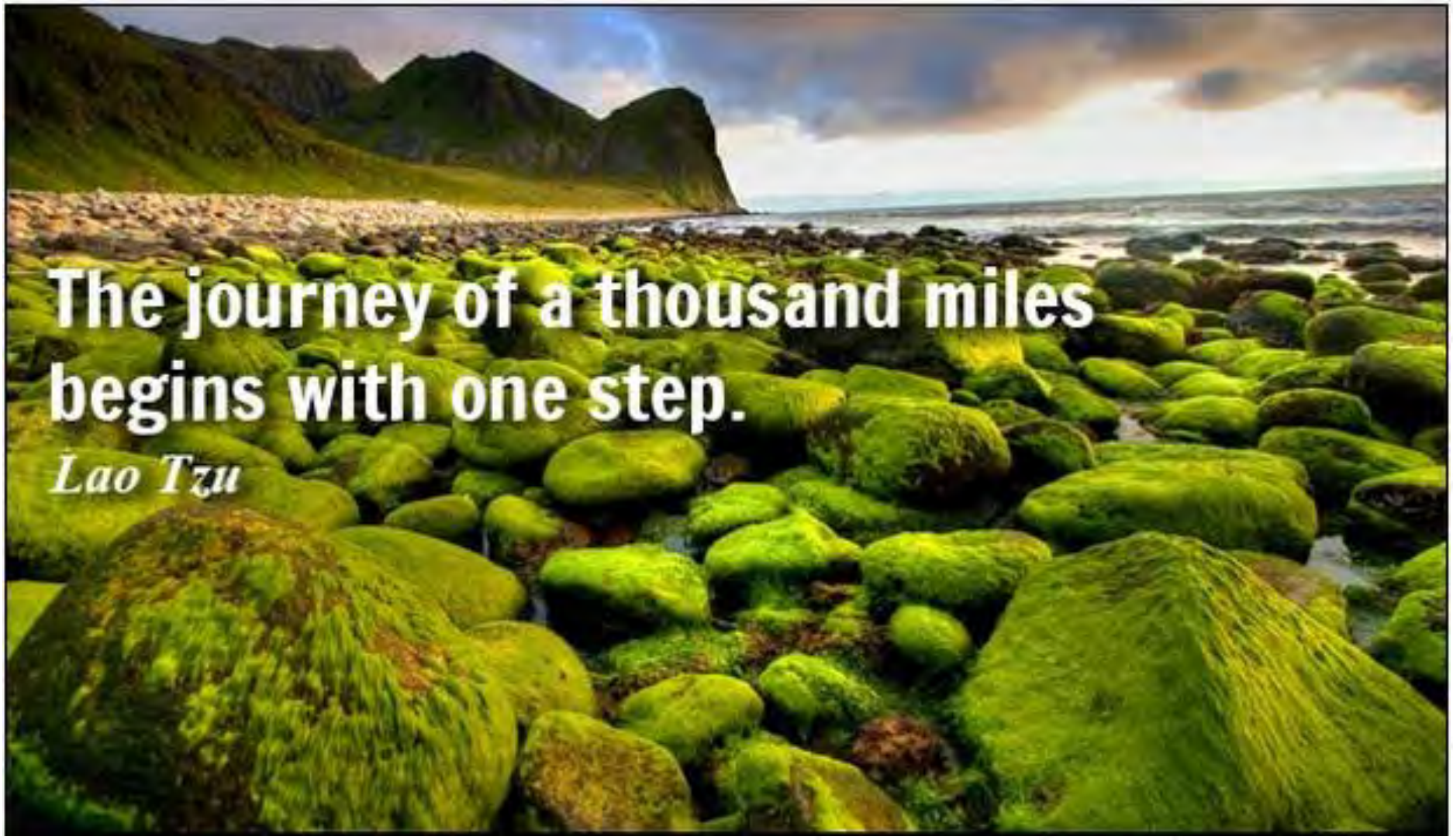

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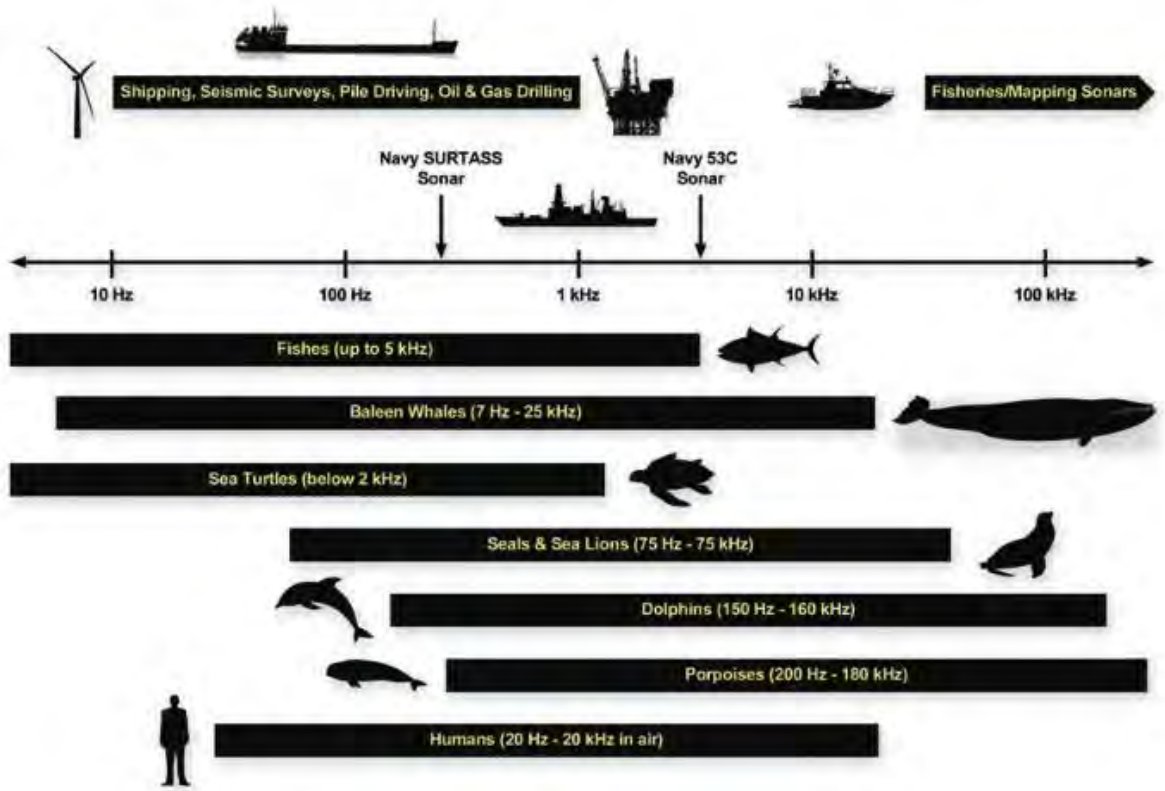
Development of the Impulsive Noise Register System

- How did the Under Water Noise Registry came into picture in the European Community.
- How did ICES got the role of developing the Impulsive Noise Register
- Steps to setup the system and develop a reporting process
- Building maps with the indicators and web-services to give access to the data
- Maybe a demo!

Science behind it and the conclusion

Underwater noise, sound that has the potential to cause negative impacts on marine life



- (TGNOISE final report, Feb 2012).

First step in the direction of developing an Impulsive Noise Register System

First step: MSFD defined noise as pollution

MSFD art. 3:

'pollution'…

… means the direct or indirect introduction into the marine environment, as a result of human activity, of substances or energy, **including human-induced marine underwater noise**, which results or is likely to result in deleterious effects…

Ambience and Impulsive Water Noise

Two indicators defined by EU:

– short duration: low and mid-frequency impulsive* noise (referred also as impulsive noise)

*includes sonars

– long lasting: low frequency continuous noise (referred also as ambience noise)

In this presentation we describe the development of the first one (Impulsive Water Noise Register Data)

New relevant marine issue

because noise is a new policy relevant marine issue there is a lack of:

a) scientific knowledge

b) monitoring and infrastructure

Request for the development of Impulsive Noise Register System

OSPAR and HELCOM have done a request to ICES Secretariat to establish a Impulsive Noise Register system.

Approach would consisted of:

- a database;
- data submission system;
- map;
- download services;
- Build indicators with linkages to OSPAR (ODIMS) and HELCOM;

Development of the Impulsive Noise Register System

Under Water Noise is a new indicator.

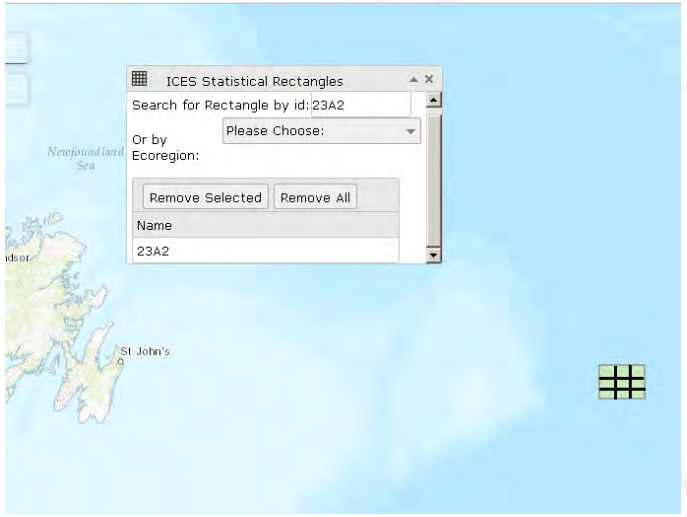
Based on TG Noise recommendations:

- Impulsive Noise Register reporting was established
- how to define and report the events
- possible regional assessment methodologies

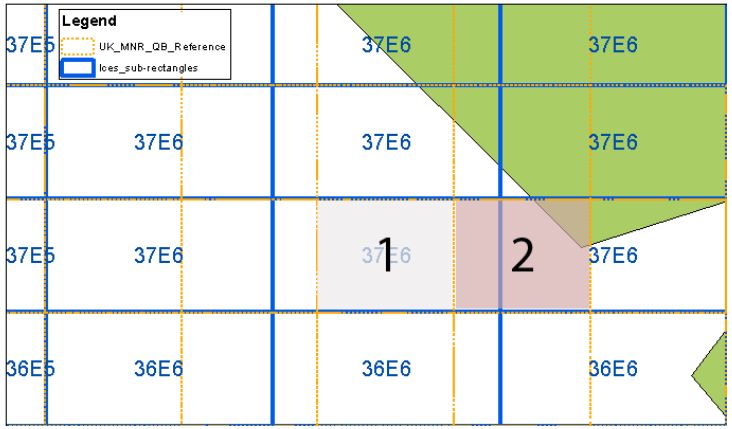
Possible reporting areas

Point (Latitude/Longitude)

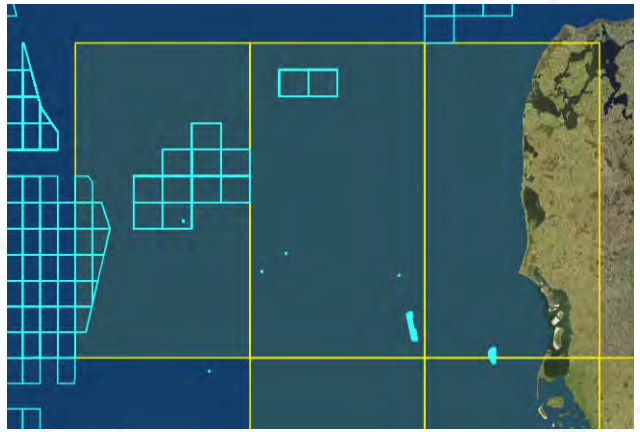
ICES Sub-square



UK Licensing blocks



German Naval areas



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Following standards

Vocabulary was developed to report the underwater noise data

In some cases the standards were followed (eg: EDMO codes for the laboratories and ISO codes for the countries)

Development of the Impulsive Noise Register System

ICES was developing a system/ database with out many guidelines.

Database was developed without any data.

Template/ XML schema was developed at the same time the reporting format was defined.

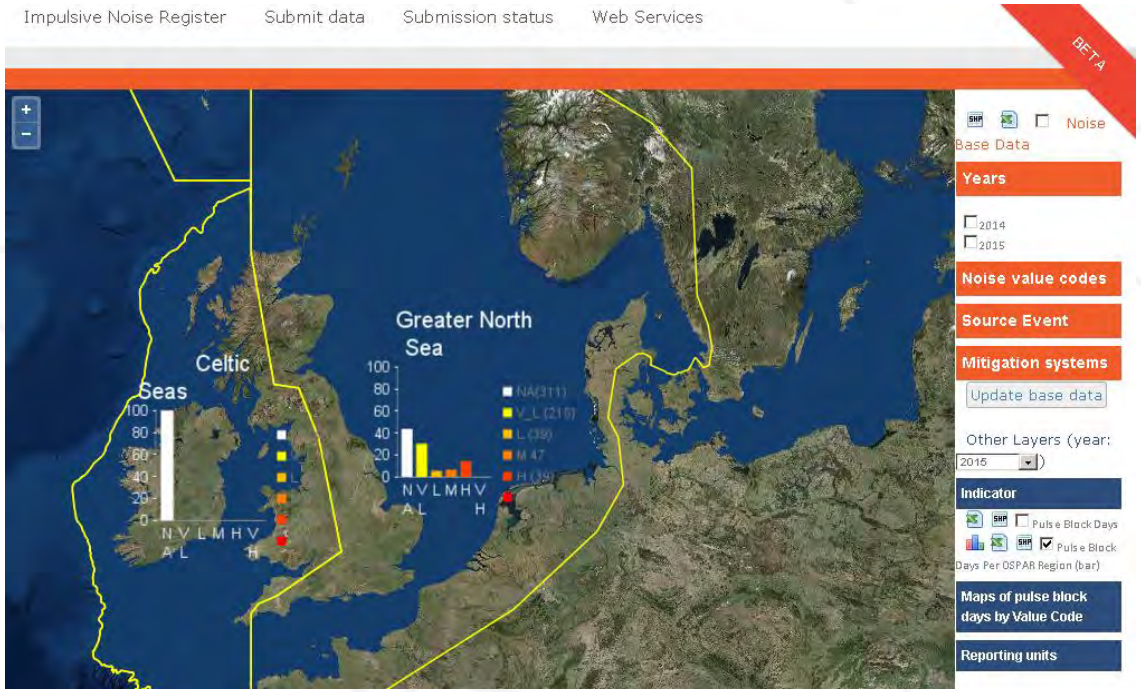
To make it easier for the submitters an Excel template was provided.

Visualization of the data and indicators

The data is available online and users can download it .

A mapping facility was also developed where user can see the data and the indicators:

- per ICES sub-rectangle
- per OSPAR region
- per HELCOM sub-basin



Reporting

The indicators were made available on-line

The data is made available using web services

OSPAR needed these to be reported to their system (ODIMS) using

web map services (WMS).

Conclusion

Starting a new system has some disadvantages:

- of having to define everything and having to build everything from the scratch.

- when you look at the task in the beginning it can seem like it is a long way to go.

The advantages are:

- you build a system with all your partners, decisions you took were done together and everyone is be very committed to the system.
- You can take the decisions instead of finding workarounds (to already defined rules), meaning you shape the system to your style/needs.

Future

ACCOBAMS (Mediterranean) might follow the same methodology

We are thinking about developing an indicator in a more inclusive grid like the c-squares.

DEMO

Do we have time for a demo?

http://underwaternoise.ices.dk

Thank you for your time

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