Pilot Action

Intercalibration for the EU Water Framework Directive

JPI OCEANS
www.jpi-oceans.eu

Background

The EU Water Framework Directive (WFD) was adopted in 2000, the purpose being establishment of a framework for protection of inland surface waters, transitional waters, coastal waters and groundwater. Significant gaps still exist despite two intercalibration phases for coastal + transitional waters. Comparable environmental assessments are of crucial importance for industry to receive equal treatment on environmental sustainability criteria.

Objectives

- **Test new mechanism for joint funding from environmental authorities** of nine countries, surpassing traditional model of joint calls, resulting in harmonisation and strengthening of scientific basis for cooperation;
- **Find experienced scientific expert leads** to perform required analyses in the most cost-efficient way for phytoplankton and benthic invertebrate fauna;
- Reducing fragmentation of calculation efforts + increasing experience with **joint data compilation and analysis**;
- Enable long term dialogue between environmental authorities and scientific community to solve remaining scientific challenges jointly.

Results

Organisational

Memorandum of Understanding:

- commonly agreed specific work programme and result obligation for the expert leads
- fixed country specific budget contributions
- **real common funding pot** governed by a research funding body that contracted seven expert leads after a specifically designed questionnaire selection process.

Scientific

Phytoplankton coastal waters

- New milestone achieved with chlorophyll a and nutrient data from all 11 North-East Atlantic member countries analysed together (one common and several linked regional fitting models obtained).
- Comparability analysis performed between legal boundaries of countries on the basis of the models that indicated how regions (see preliminary figure 1) and countries differ from each-other.
- Complex problem close to a satisfactory and scientifically sound solution after in-depth exchange with environmental authorities.
- **Next steps:** Continuation for phytoplankton transitional waters

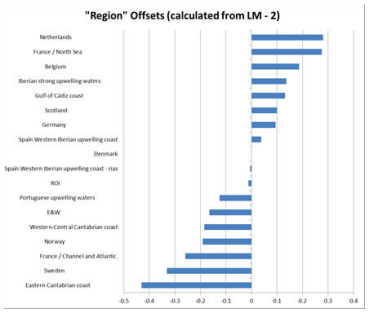

Figure 1. Differences between different regions of 11 countries in their chlorophyll a concentration response to nutrients (winter DIN)

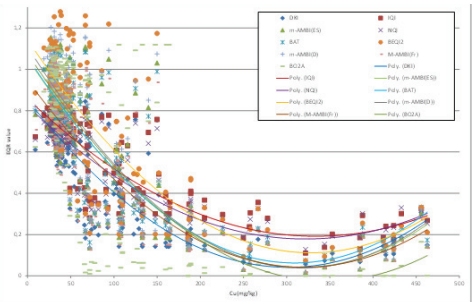

Figure 2. Behaviour of different benthic invertebrate assessment methods of 9 countries along a common pressure gradient

Benthic invertebrates coastal waters

- Regional differences in behaviour of different benthic invertebrate assessment methods of 9 countries verified for the comparison of their legal boundaries.
- The comparability analysis with all countries showed that member countries have developed comparable methods with only few adjustments suggested.
- The results evaluated positively by the intercalibration JRC review panel to include in the next Commission Decision on the values of the Member State monitoring system classifications.

Benthic invertebrates transitional waters

- Very variable data which makes it difficult to analyse, mainly due to variability of pressure data.
- Calculation capacity not always sufficient to work efficiently with large dataset.
- Next steps: continuation to find practical solution with extra analytical and training effort needed.

Countries Involved

Belgium, Denmark, France, Germany, Ireland, Netherlands, Norway, Sweden, United Kingdom

Find Out More