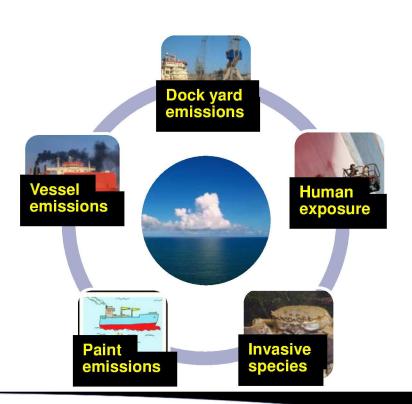


Agenda

- Introduction
- The regulatory environment
- An Example
- What should we protect?
- Conclusions



Introduction



- Managing hazardous chemicals is a key ambition globally
- Environmental issues and public awareness of chemicals are well established
- · Government policy reflects this
- Ultimate ambition is to minimise impact on environment and humans alike
- Antifouling Paint: A case in point



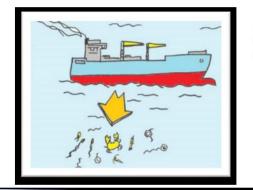


The Regulatory Environment: An Industrial Perspective



3 Spheres of regulation...

This part isn't harmonised!

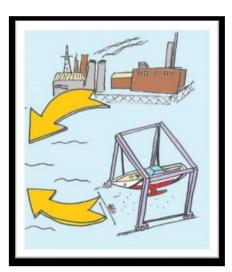




Chemical

laws

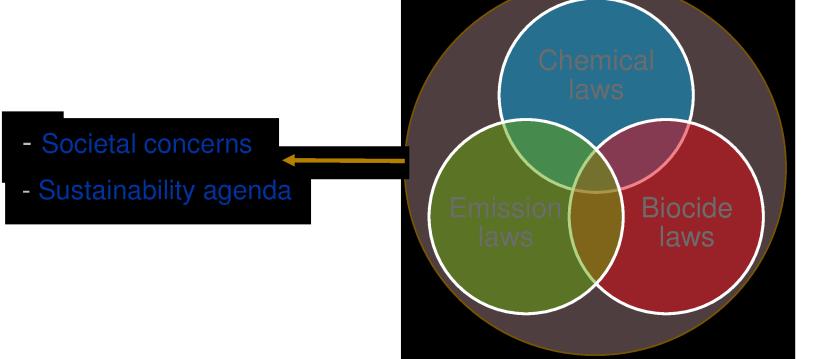
Biocide laws



It's also where paint tends to get 'caught'



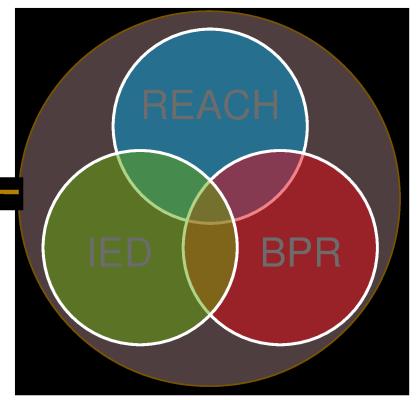
An extra focus





Regulatory Framework

- CoRAP / SVHC
- Sustainable use of Biocides Regulation
- Microplastics
- BPA
- Invasive Species
- Vessel GHG
- Etc







An Example: Antifouling Paints

Why Antifoulings?

Products **support** Global and Regional regulatory ambitions:

- Current best technology to minimise ship and yacht hull fouling
- Critical to reduce hydrodynamic drag minimising fuel consumption
 - Reducing Vessel Green House Gas emissions
 - World fleet accounts for approximately 3% of world green house gas emissions alone
- Critical to minimise risk of invasive species
 - Hull fouling accounts for majority of invasive species introductions
 - · Increasing evidence that Yacht and costal fleet 'vector' invasive species

BPR will restrict innovation of new products and sale of current effective products

- Precautionary principle, conservatism throughout risk assessment, lack of harmonised protections goals...
- All prevent approval of products especially Yacht coatings

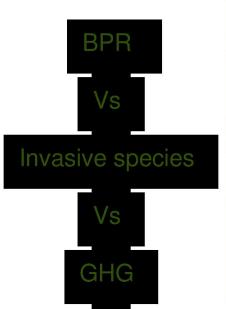


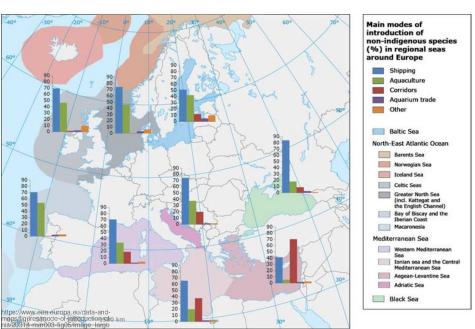


Regulatory ambition?

Environmental Protection?



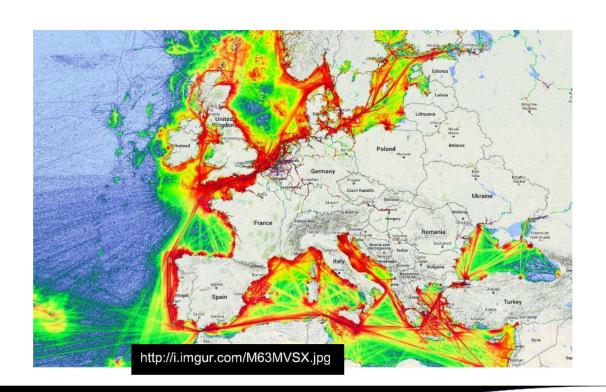






European Shipping Routes









What should we protect?

How do we align Protection goals?



This?

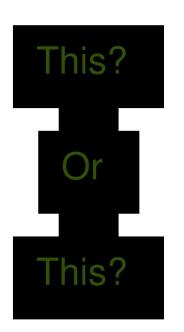
Or

This?















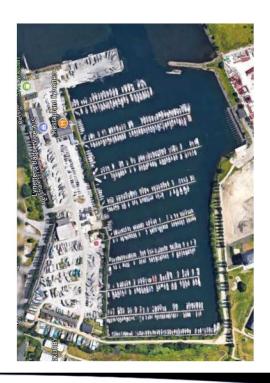
This? and This?

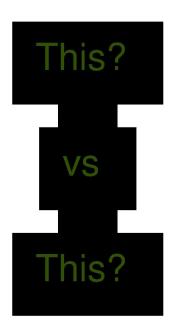




Do we ever consider what's most important?

What's the *Ecological* Value?



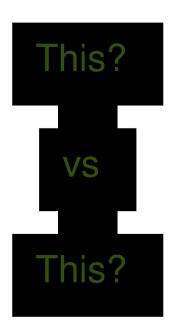






What's the *Ecological* Value?









What's the relative *Ecological impact*?

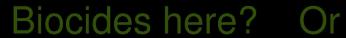


GHG there?











What's the relative *Ecological impact*?



More invasive species?







Biocides here?

 \bigcirc





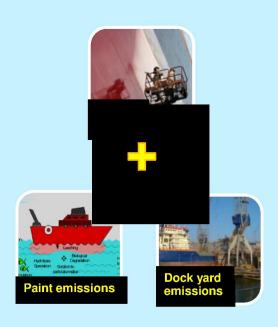
Conclusions



Regulations need to work together









Conclusions

Protection goals and government policy needs to be aligned across regulatory frameworks

 E.g Designate marinas as 'heavily-modified water body' under the Water Framework Directive

- Allows for a different approach to be taken in BPR
- Ensures we have effective control over invasive species
- Competent authorities should be encouraged to work together
 - Avoid 'Silo' thinking recognise where department responsibilities overlap
- Use risk assessments effectively
 - Avoid excessive worst case assumptions
 - Gather data to inform validity of models
- Be consistent
 - Use the same tools across all legislation
 - Prevent contradictions and conflict with decision making

