

Reducing biofouling risks through policies that create behaviour change^{^#}

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Can we design **effective** vessel biofouling risk-mitigation policies that minimise negative impacts on international trade?

Yes!
(Incentives are key)

Policies that are:

- ✓ Fair (risk creator pays)
- ✓ Efficient (achieve policy goal at lowest cost)
- ✓ Incentive-compatible (encourage desirable behaviour)

Biofouling of vessel niche areas—the potential for insurance as an incentive for effective risk mitigation

Vessel operators purchase risk insurance

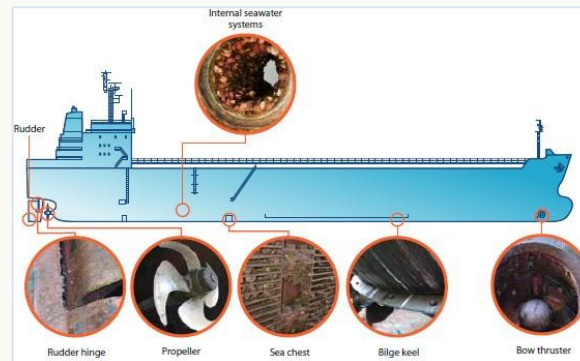
- ✓ Premiums calculated by actuaries, based on biofouling risk posed, and informed by science
- ✓ Compulsory premium is the incentive needed to change behaviour

Link risk-rating to verifiable Biofouling Management Plans (BMPs)

- ✓ No verifiable BMPs = high risk, high premiums
- ✓ Incentives to reduce biofouling risk

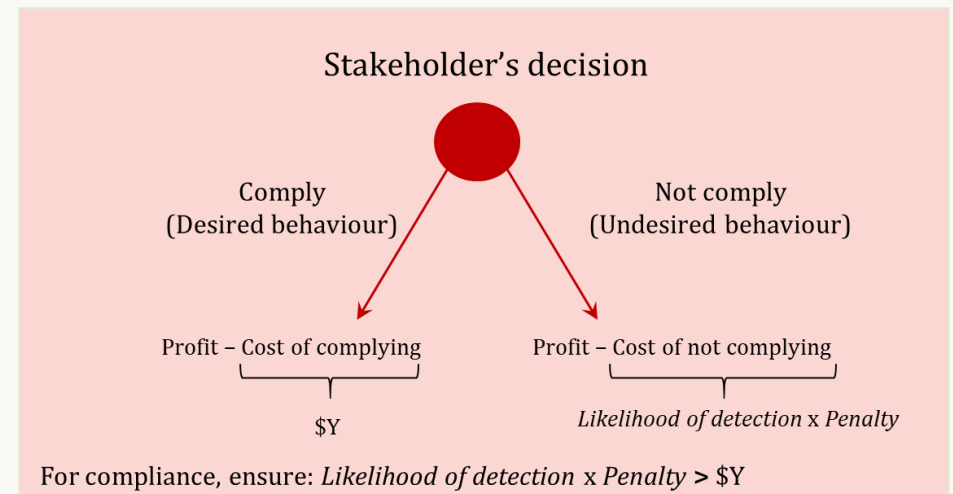
Insurance pool

- ✓ Funds biosecurity agency costs, incl surveillance
- ✓ Funds response effort
- ✓ Financially sustainable model



[^] CEBRA 21C; Stoneham et al. (2021) The Boundary of the Market for Biosecurity Risk. *Risk Analysis*, 41: 1447-1462.
<https://doi.org/10.1111/risa.13620>; Ch 8 in Hester et al. (2024) *Biosecurity: a Systems Perspective*, Taylor and Francis.
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How do biosecurity stakeholders ^{actually} make decisions?



Make the 'best' decision for stakeholder = the desired one from the biosecurity agency's standpoint