

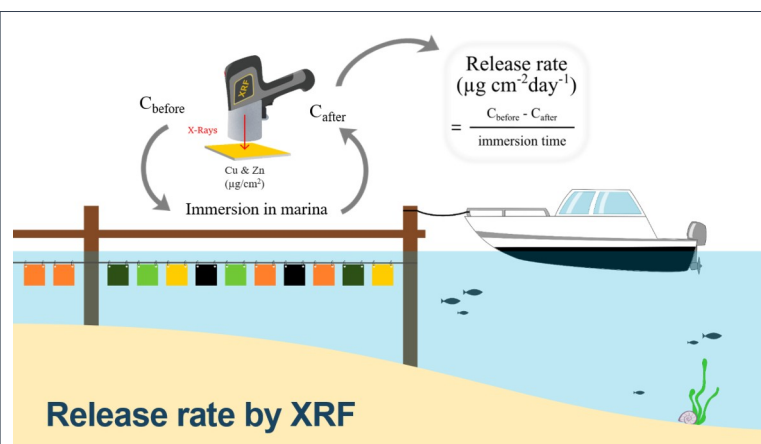


Transport, Energy and Environment (TEE) Chalmers University of Technology (Sweden)

Our research focuses on marine biofouling, its environmental and operational impacts, and strategies for sustainable management for ships and leisure boats. We map biofouling pressure and species across European waters, assess its effects on ship performance, and determine effective biocide release rates and hull cleaning methods. We also develop decision-support tools for antifouling strategies. In parallel, we study chemical pollution from antifouling coatings, using XRF to measure biocide emissions and improving environmental risk assessments for both existing and new products. Additionally, we investigate the spread of invasive species via shipping, identifying high-risk routes and evaluating current mitigation measures, especially in niche areas like sea chests.

Implication dans l'

- ☐ axe 1 Compréhension du processus de biofouling, interactions entre les organismes et avec les surfaces, rôles de l'environnement et services écosystémiques.
- ☒ axe 2 Impact environnemental et sociétal des traitements antifouling.
- ☒ axe 3 Protection des matériaux, élaboration de surfaces, revêtements, molécules, matériaux pro-fouling et antifouling bio-respectueux.
- ☐ axe 4 Approche sociologique et sociétales du biofouling et des solutions antifouling



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Mots clés

Antifouling, sustainability, ecotoxicology, environment

