

Active Nautical Depth (AND):

Mixing and aeration of the sediment

➔ **Navigable fluid mud**

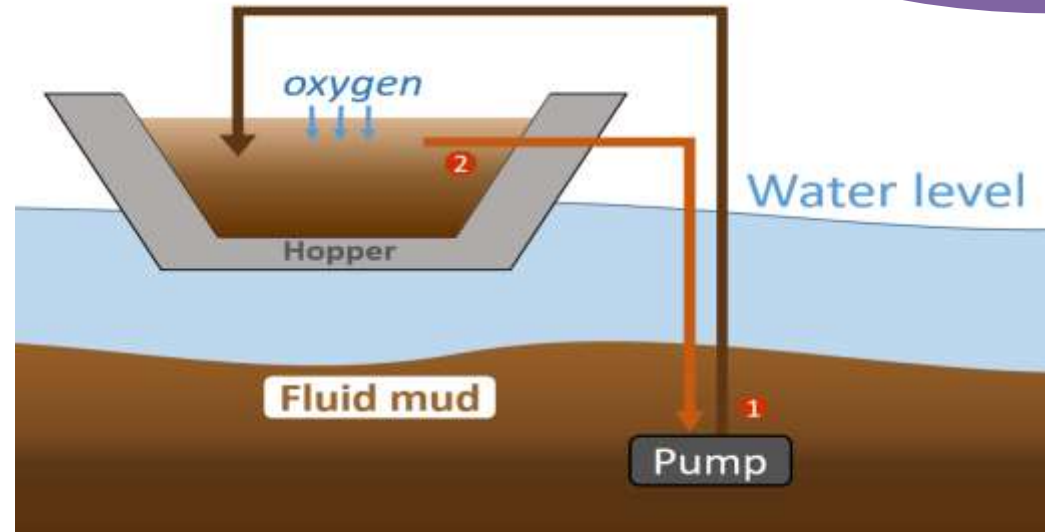
Aeration = Growth of aerobic micro-organisms

➔ Extracellular polymeric substance

→ Delays mud consolidation

➔ Contaminant degradation

→ Tributyltin (TBT)



How to help nature to self-clean?

Tributyltin bioremediation:

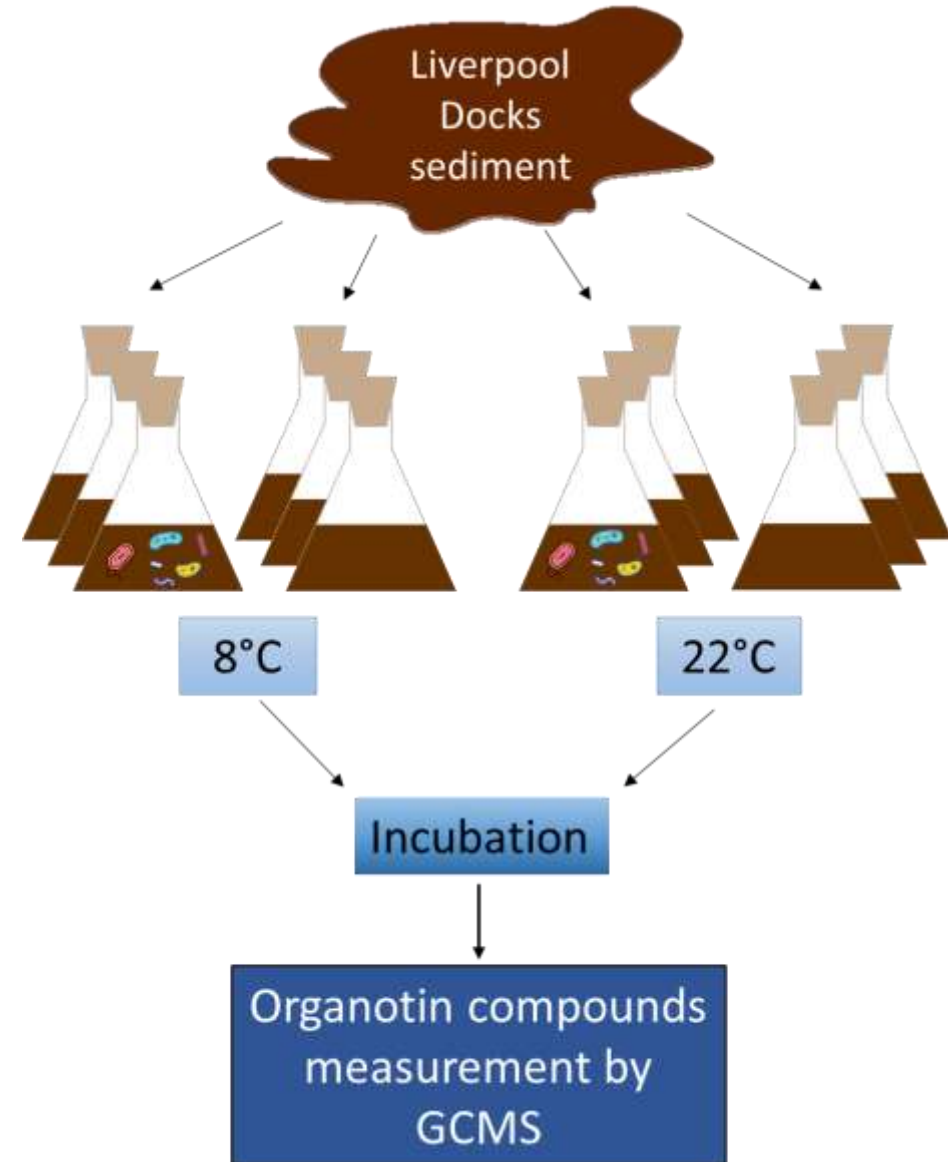
➔ Antifouling compound: → now banned but very persistent in anoxic sediment

➔ Biodegradation = major pathway for TBT elimination from environment

Objective: *Assess the environmental factors controlling TBT biodegradation in sediment*
→ *optimize the implementation of Active Nautical Depth*

Method:

- ➔ Microcosm experiment:
- ➔ Different condition of:
 - Temperature
 - Aeration
 - Agitation
 - ➔ Organotin compounds measurement by GCMS
 - ➔ TBT degradation rate



*Any suggestions or questions?
Do come and speak to me!*