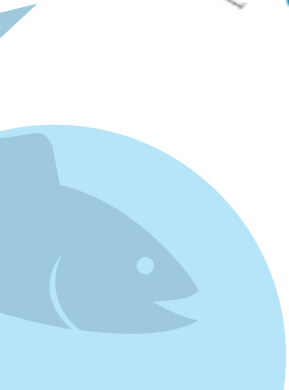


Fish Migration... *from Sea to Source*

LNS+ *A proposal for the 9th Call*



Alistair Maltby MSc CEnv FIFM
The Rivers Trust (UK NGO)
Lead Beneficiary LNS project





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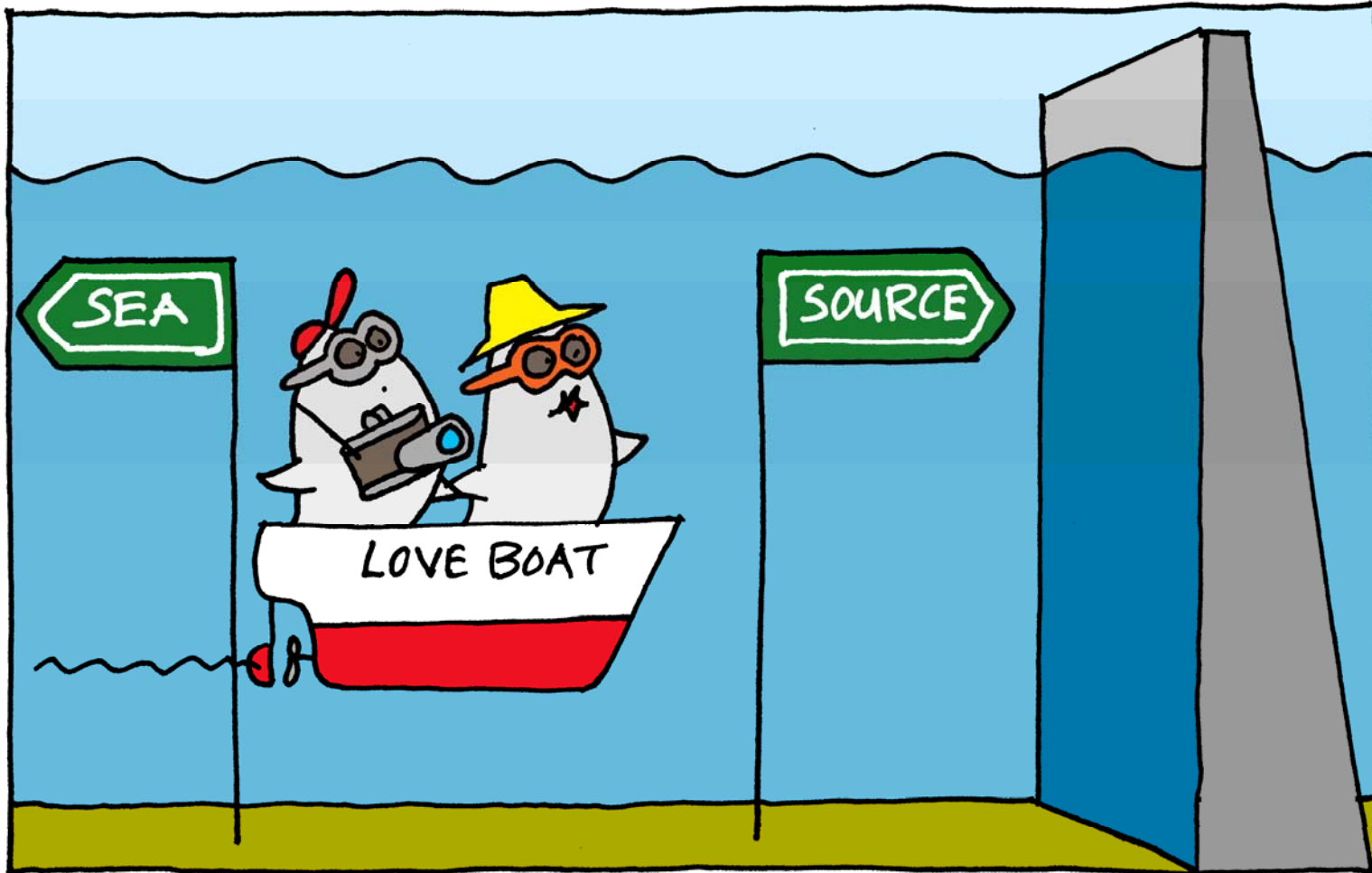
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FROM SEA TO SOURCE





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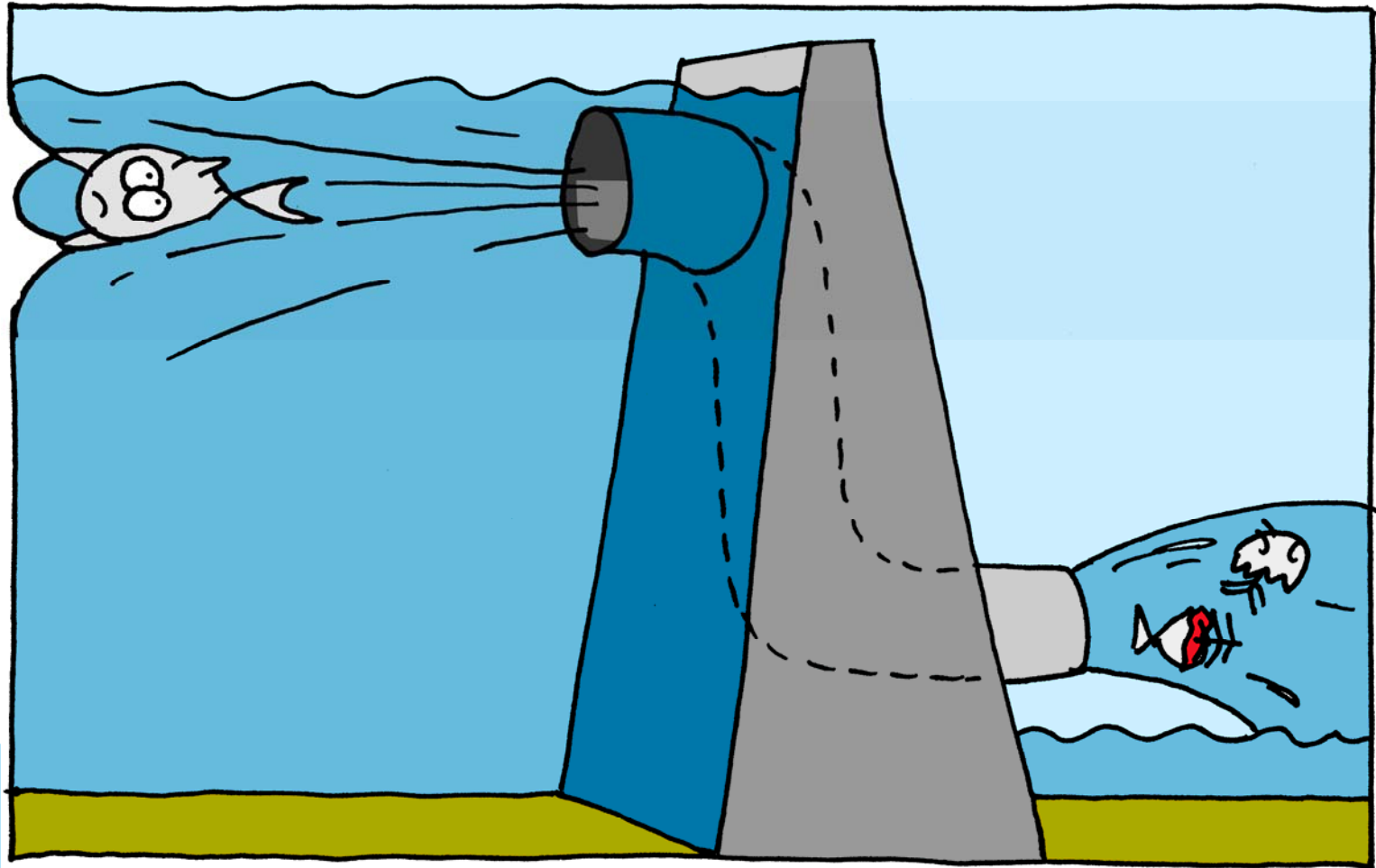
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THE DANGER OF DOWNSTREAM MIGRATION





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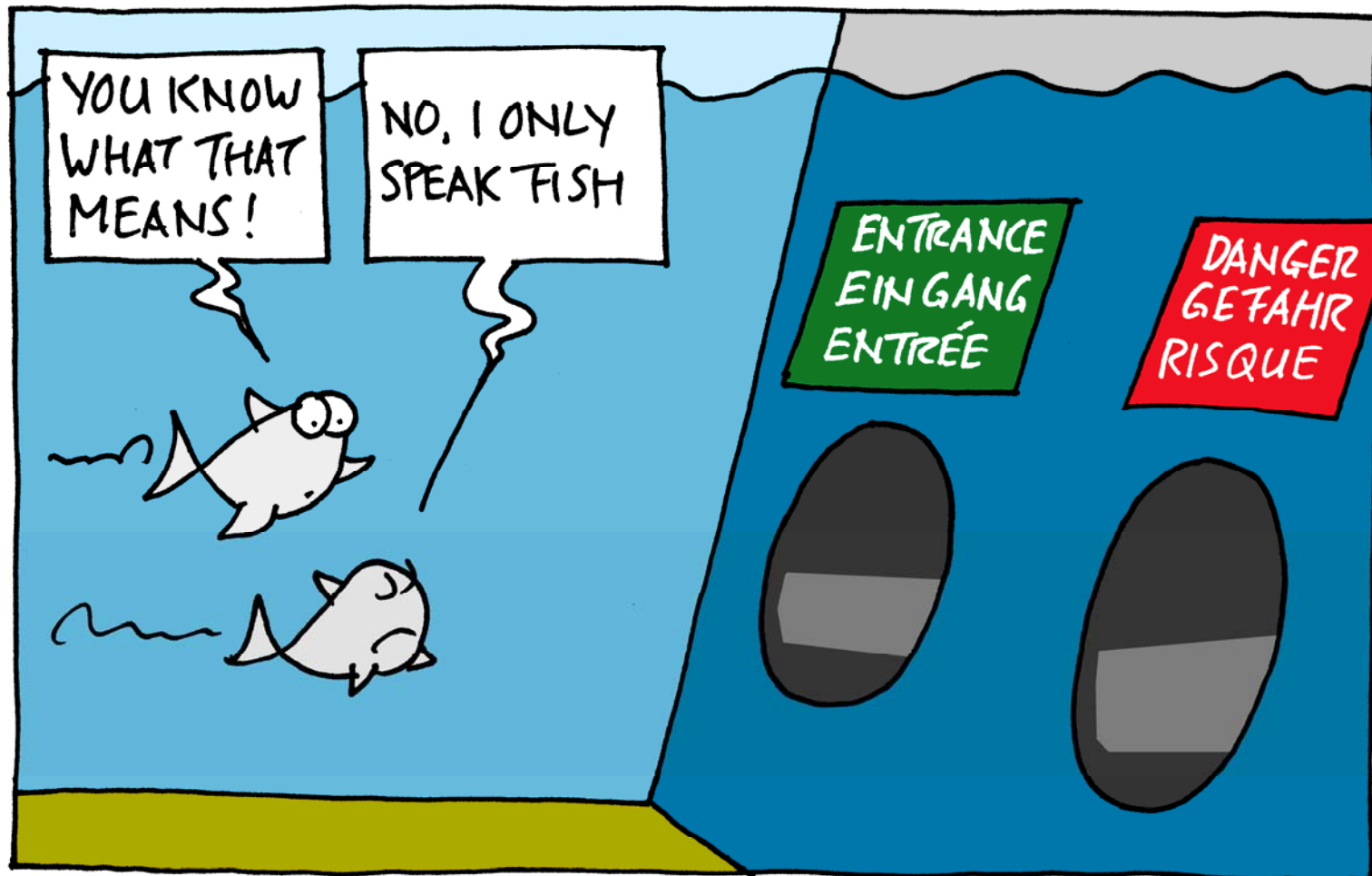
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LANGUAGE BARRIERS



Future Perspectives

- Europe 2020 Strategy
 - Expansion of renewable energy
 - Climate change resilience
- EU Biodiversity Strategy for 2020
 - Halting the loss of biodiversity & degradation of ecosystem services
- EU Blueprint for Water
 - Better implementation & better integration of water policy and other policy areas



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EU Blueprint for Water

“...it appears that **the most widespread pressure** on ecological status in the EU (19 Member States) originate from changes to water bodies due, for example, to **dams for hydropower and navigation or draining land for agriculture; embankments for flood protection**. There are known ways to address these pressures and they should be applied. Where existing structures built for hydropower, navigation or other purposes break river continuity and, often, fish migration, mitigation measures such as fish passes and fish lifts should be standard practice.”

“When there are plans to make significant new changes to water bodies, Strategic Environmental Assessments (SEA) should be made in addition to Environmental Impact Assessments (EIA) for specific projects. For instance, national and regional plans to develop **hydropower should be subject to a SEA to identify where the dams could be located to minimise negative environmental effects** and vulnerability to disaster risks, or to **compare the plans with alternative renewable energy sources development.**”

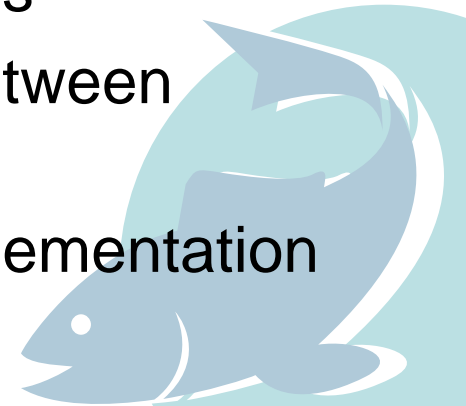
Future Perspective

Risks

- Contradictory policy
- Circular funding & investment needs
- Societal needs reflect immediate concerns of carbon & flooding rather than the underpinning ecosystem.
- Conflict between sectors
- Slow / ineffective implementation

Opportunities

- Integration of policy implementation
- Society understands ecosystem services
- Harmonisation of funding & cost savings
- Much love between sectors
- Effective implementation



Identification of effective future actions...

- Identify best practice & opportunities for implementation of best practice for a watershed approach to hydropower implementation
- Integrate biodiversity & ecological critical areas in online planning tools to facilitate future implementation
- Develop tools for facilitating watershed and integrated marine spatial planning in the context of climate change resilience & flood risk management
- Development of ecosystem service tools



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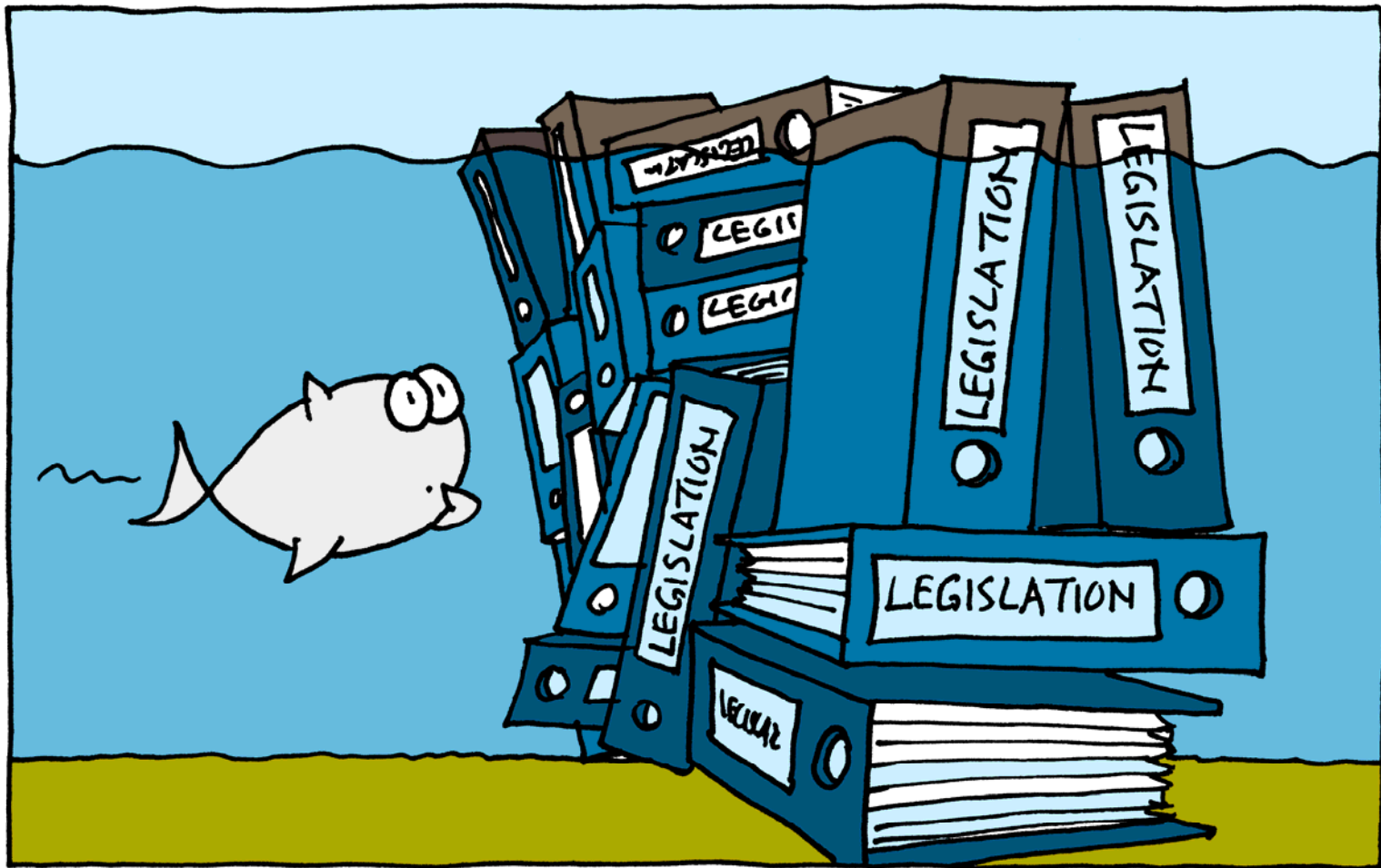
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LEGISLATION



What can LNS bring?

- Fish!
- Comprehensive knowledge on fish migration solutions
- Geographical & species priorities
- Links into water policy and management networks
- Implementation



What does The Rivers Trust bring?

- Watershed (catchment) based planning knowledge & tools
- Community-led implementation across 80% of the UK
- Specific expertise on diffuse pollution, land use management & fisheries management
- Leader in development of Paid Ecosystem Services
- Flexible lead beneficiary



Existing network

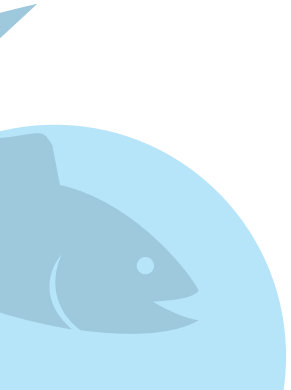
- NL
 - Regional water authorities
 - Noorderzijlvest
 - Hunze en Aas
 - Waternet
 - Sportviserij Nederland
- BE
 - INBO
- DE
 - VTI
- UK
 - Tweed Foundation
 - Aberdeen University
 - CEFAS
 - Environment Agency
- DK
 - DTU
 - Odense (Sea Trout Fyn)
- SE
 - Falkenberg
- NO
 - NINA



Fish Migration... *from Sea to Source*

What do we need / want?

- Experience in marine spatial planning
- Flood risk management professionals
- Renewable energy & in particular hydropower
- Catchment / watershed managers / planners
- Commercial fisheries links





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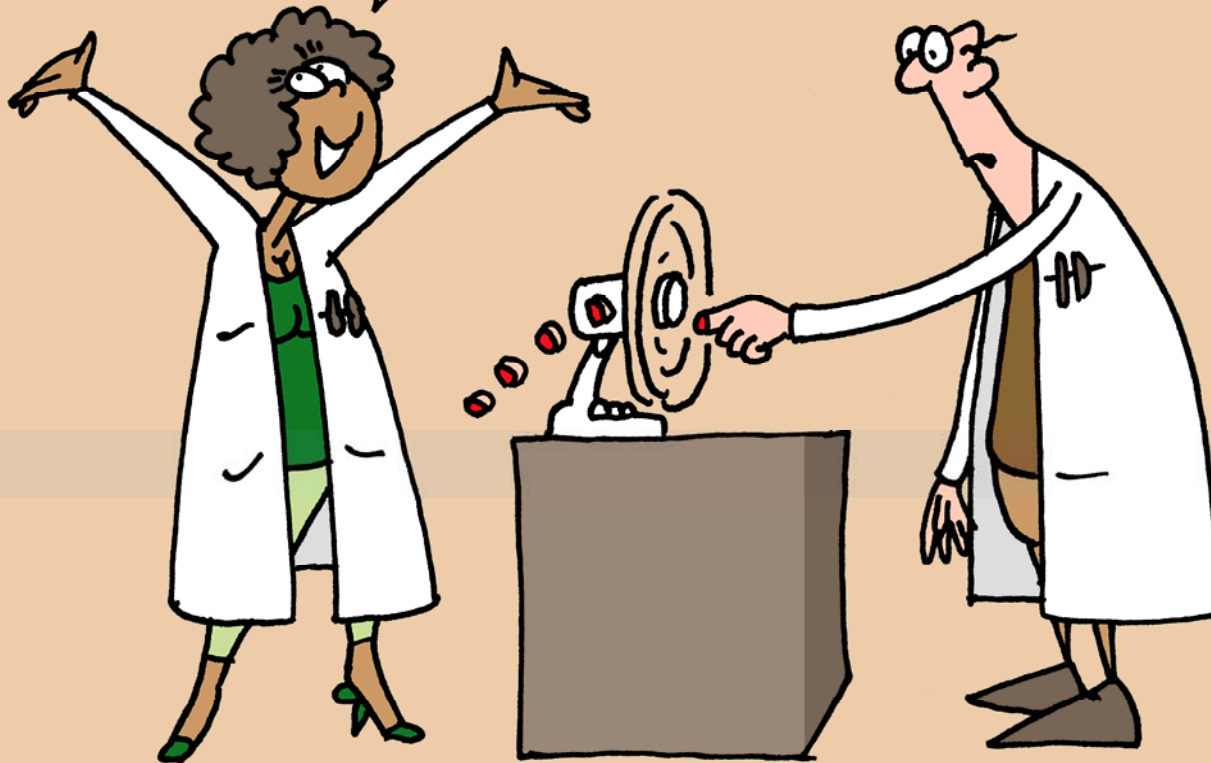
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DESIGNING FISH FRIENDLY PUMPS/TURBINES

THINK LIKE A FISH, BE THE FISH!



Interest so far...

- Rijkswaterstaat on behalf of the North Sea partnership
- Bringing the lessons learnt from LNS to the Haringvliet problem (transferability)



Other work proposed

- Dissemination
 - Continue to provide training & demonstration of fish migration solutions
 - Continue to develop communication platforms to increase adoption
- Transferability
 - Test genetic fishery management tools developed as part of the project against commercial bycatch
 - Combine LNS data sets with similar work carried out in Celtic region cross-border & Atlantic Area Interreg programmes



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THE IDEAL SOLUTION, NO OBSTACLES

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