

### Workshop

Methodologies for prioritising hazardous chemicals in European waters: the state of play and the need for improvement **solutions** 



Werner Brack

## **The Project**



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Solutions for present and future emerging pollutants in land and water resources management



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# Prioritisation of pollutants as a key task in SOLUTIONS







**Objective 1:** To develop a conceptual framework for the prioritisation of pollutants for ecological and human health risk assessment and the abatement of toxicant mixtures in European water resources

- Solution-oriented approaches that consider abatement options already for assessment and prioritisation
- Integration of human health and ecological risks
- **Improved identification** of emerging pollutants and hazardous transformation products
- Identification of drivers of mixture toxicity
- Identification of priority mixtures
- Integration of modelling approaches, chemical analytics, and effectbased tools

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- Integration of legacy, present use and future chemicals
- A self-sustainable prioritisation process taking into account existing knowledge gaps as a way to trigger for high priorities for research
- Consideration of technical and non-technical abatement options
- Synergies and conflicts between the WFD and other existing policies (e.g. REACH)
- Operationalisation of the conceptual framework in terms of an enduser friendly decision support tool (RiBaTox) and a toxicant knowledge base





#### Alternative ways to think:

Prioritisation, monitoring and assessment of individual chemicals one by one

- How to optimally integrate monitoring and modelling based on production, use, fate, toxicity of chemicals?
- How to include all relevant chemicals? How to get PNECs for all of them? Role of *in vitro* assays and QSARs?
- Approach may promote the ban of chemicals and replacement by others (with similar effects). Is that helpful for our environmental goals? How to deal with the dynamic of chemicals markets and replacement of chemicals?
- Chemicals never occur individually but always as mixtures. How to deal with mixture effects?





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#### Alternative ways to think:

Prioritisation, monitoring and assessment of (effect-based) compound groups, mixtures, complex contamination

- How could such an approach look like in practice? What would be the roles of effect-based and chemical screening, of modelling.....?
- Do we have to prioritize, monitor and benchmark effects instead of individual chemicals?
- How to get from a site scale to basin and European scale?
- How to make such an approach compatible with regulation? Polluters pay principle? Regulation of chemicals?







## Final goal of the workshop

Common position paper on



- Alternatives with pros and cons or/and
- first ideas how to integrate both alternatives







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