



Draft Workshop Outline V3

2nd SOLUTIONS Workshop on Prioritization Methodologies

jointly held with

**the FRAM Center for Future Chemical Risk Assessment and Management Strategies
at Gothenburg University**

Integrating Mixture Risk Assessment into Prioritization Procedures under the EU Water Framework Directive

9 – 10 February 2017

Wallenberg Conference Center of the University of Gothenburg, Sweden

Aims

The workshop aims to explore options for integrating assessments of mixture toxicity and cumulative risks of chemicals in the aquatic environment into prioritization procedures under the EU Water Framework Directive (WFD). The workshop will focus on three main topics:

- (i) How to identify priority mixtures?**
- (ii) How to identify drivers of mixture toxicity?**
- (iii) How to set Environmental Quality Standards (EQS) for priority mixtures?**

Concepts, criteria, models and experimental tools for tackling these questions shall be discussed. Barriers to effective problem solving, and possible ways to overcome them, shall be identified. Both environmental risks and human health risks from mixtures of chemicals in fresh and marine waters shall be taken into consideration. Prior attention will be given to approaches that fit into the framework provided by the current legal text of the WFD. However, the discussion may also include approaches that would require a revision of the WFD in adaptation to scientific progress.

As a forum for this debate, the workshop brings together SOLUTIONS partners and advisors, FRAM members and advisors, and invited external experts from science, regulation and other stakeholder groups. All participants are encouraged to bring in their views and to suggest effective approaches to the three topics. The mutual feedback is expected to help shaping current and future work on these issues in both FRAM and SOLUTIONS. As a publishable output, the workshop results shall be documented in three discussion papers on the three main topics.

Background

As a strategy “against water pollution by individual pollutants or groups of pollutants presenting a significant risk”, Article 16 of the WFD requires the risk-based identification of priority substances and the setting of corresponding EQS [1]. Current procedures for these purposes are focused on individual chemicals. They are assessed as if they would occur in isolation, largely ignoring the fact that they are part of complex multi-constituent mixtures. In 2012, The European Commission recognized the needs to identify “priority mixtures” and “main drivers of mixture toxicity” across the different pieces of EU legislation [2], but significant progress towards these aims has not yet been achieved. In 2011, the Commission's Scientific Committees proposed a number of criteria for prioritizing “mixtures of potential concern” [3], but the approach has not been taken forward towards actual regulatory applications. Also in 2011, a short chapter on the calculation of quality standards “for substances occurring in mixtures” was included in the guideline for deriving EQS under the WFD [4], but apparently this guidance has not been practically used and it leaves much room for improvement.

The workshop will make a fresh attempt to remove these deficiencies.

Context

The workshop is the second one in a series of conferences on needs and options for the advancement of prioritization methodologies. The first one examined the state-of-the-art and derived recommendations for SOLUTIONS work on the issue. It was organized jointly with the NORMAN network and took place in Paris in 2014 (<http://www.norman-network.net/?q=node/156>). As an outflow, three opinion pieces were published in the ET&C Perspectives column [5].

Workshop format

The workshop will have a 1 ½ day format, structured into plenary presentation sessions and discussion sections in three parallel break-out groups. The three main workshop topics shall be addressed by one discussion group each.

The workshop is planned to provide a discussion forum for around 60 participants (20 per discussion group). If required, the reserved conference facilities will allow to host up to 90 participants as the absolute possible maximum.

Output

Discussion papers resulting from the workshop are intended to be published in *Integr. Environ. Assess. Manage.* (IEAM) or another appropriate journal. All discussion group participants will be invited to actively contribute as co-authors, but this is not a pre-condition for workshop participation. The discussion papers are not intended to be consensus statements but to outline the range of available options for problem solution and to identify both lines of consensus and lines of dispute about the best way forward.

As an option, the discussion papers may become part of a special issue of IEAM or another journal. Such a special issue could be populated with invited articles from individual workshop participants, if there is sufficient interest.

Steering committee

Three pairs of “topic leaders” will each act as chair and rapporteur for one of the three workshop topics. Additionally, they will act as leading authors for realizing the corresponding discussion papers. Collectively they form the steering committee for the workshop. The members are:

- Werner Brack, UFZ Leipzig, Germany (SOLUTIONS coordinator)
- Rolf Altenburger, UFZ Leipzig, Germany, (SOLUTIONS sub-project leader)
- Thomas Backhaus, University of Gothenburg, Sweden (FRAM director and SOLUTIONS partner)
- Leo Posthuma, RIVM, Bilthoven, The Netherlands (SOLUTIONS partner and FRAM advisor)
- Andreas Kortenkamp, Brunel University London, UK (SOLUTIONS partner)
- Michael Faust, F+B, Bremen, Germany (SOLUTIONS partner, responsible workshop organiser)

As means for structuring the debates, background briefing papers will be prepared on each of the three topics and distributed to the workshop participants beforehand.

Invited keynote speakers

The following external experts kindly agreed to join the workshop and to give a plenary keynote presentation:

- Marco Vighi, IMDEA Water Institute (Madrid), Spain; Member of SCHEER (The European Commission's Scientific Committee on Health, Environmental and Emerging Risks)
Presentation topic: EQS for mixtures: Evolvement of the concept and prospects for implementation
- Paul Price, US EPA (Unites States Environmental Protection Agency); formerly Dow Chemicals
Presentation title: *The Maximum Cumulative Ratio as a tool for mixture prioritization and driver identification*
- Ann-Sofie Wernersson, SwAM (Swedish Agency for Marine and Water Management); Co-leader of activities on EBTs under CIS (Common Implementation Strategy for the WFD)
Presentation topic: Using EBTs for mixture prioritization and driver identification: status of development and future prospects
- Peter Korytar, European Commission DG ENV.B.2 - Sustainable Chemicals; Policy Coordinator, currently seconded to the Slovakian Presidency (*final confirmation of availability on workshop dates pending*)
Presentation topic: Update on Commission activities and expectations related to the workshop topics: Overview from a broader policy perspective

Stakeholder participation

In addition to organisations represented by the invited keynote speakers and by SOLUTIONS partners, experts from following stakeholders have been invited to bring in their specific experience into the discussion groups and to give a short plenary presentation on views, activities, and expectations of their organisations related to the workshop topics. In principle most of them already confirmed their participation, but the final nomination of delegates is partly pending:

- EEA (European Environment Agency) - IEA1 - Green economy, and NSS2 - Water and Marine
- EFSA (European Food Safety Authority) - MixTox Project
- European Commission DG ENV.C.1 - Clean Water
- European Commission DG JRC - Mixtures Project Team

- ECHA (European Chemicals Agency)
- KEMI (Swedish Chemicals Agency)
- Swiss Centre for Applied Ecotoxicology
- UBA (German Federal Environment Agency) - WG Chemical Mixtures

Venue

Conference Centre Wallenberg, Medicinaregatan 20 A, SE 405 30 Göteborg, Sweden
(<http://www.gu.se/english/conferences/conference-packages/wallenberg>).

Dates

Day 1 (Thursday 9 February 2017) 09h00 – 19h00
followed by a workshop dinner at the conference site

Day 2 (Friday 10 February 2017) 09h00 – 14h30

Participants from abroad will need to travel to Gothenburg on the day before the meeting (Wednesday 8 February), but will be able to travel back home on Friday afternoon (10 February) after the end of the meeting.

Costs

No registration fees apply.

Drinks and meals during the workshop will be offered free of charge, including the workshop dinner which is kindly sponsored by FRAM.

SOLUTIONS partners and FRAM members (if applicable) must bear their travel and accommodation costs from their own SOLUTIONS or FRAM budgets, respectively.

Personally invited external experts will get their travel and accommodation costs reimbursed from the SOLUTIONS Workpackage 2 budget.

The workshop is open to all members of both the SOLUTIONS and the FRAM advisory boards, and participation is highly appreciated. Unfortunately, however, no budget is available for refunding travel costs of all advisory board members for this event, and therefore they are kindly requested to bear them on their own. Exemptions apply to personally invited experts, as indicated above.

Further information

Scientific workshop organisation: Michael Faust (SOLUTIONS), faust@fb-envico.com

Local organisation: Åsa Arrhenius (FRAM), asa.arrhenius@bioenv.gu.se

About FRAM

FRAM is a multi-disciplinary academic centre established in 2016 at Gothenburg University, Sweden. FRAM works towards defining safe local, regional and global boundaries for chemical pollution that protect ecosystem services against the impact of the totality of chemical emissions and exposures. Prof. Dr. Thomas Backhaus is the director of the centre. <http://fram.gu.se/>

About SOLUTIONS

SOLUTIONS is a Collaborative Project funded by the European Commission. 39 partner organisations work together on the development of *Solutions for present and future emerging pollutants in land and water resources management*, as the full project title says. SOLUTIONS is coordinated by PD Dr. Werner Brack from the UFZ Centre for Environmental Research, Leipzig, Germany. <http://solutions-project.eu/>

References

- [1] Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for the Community action in the field of water policy. Off J Eur Union L 327:1-72; as last amended by Commission Directive 2014/101/EU of 30 October 2014.
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- [2] EC (European Commission). 2012. The combination effects of chemicals, Chemical mixtures. Communication from the Commission to the Council, COM(2012) 252 final, Brussels, 31.5.2012.
Available online at <http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:52012DC0252&from=EN>
- [3] EC (European Commission). 2011. Toxicity and Assessment of Chemical Mixtures. Directorate-General for Health & Consumers - Scientific Committee on Health and Environmental Risks (SCHER), Scientific Committee on Emerging and Newly Identified Health Risks (SCENIHR) Scientific Committee on Consumer Safety (SCCS), final approved opinion.
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Available online at <https://circabc.europa.eu/sd/a/0cc3581b-5f65-4b6f-91c6-433a1e947838/TGD-EQS%20CIS-WFD%2027%20EC%202011.pdf>
- [5] Brack W, Heiss C, Küster A, Dulio V, Slobodnik J, Faust M, Backhaus T. 2015. The challenge: prioritisation of emerging pollutants. Environ Toxicol Chem 34, 2181-2187.
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