

Network of reference laboratories and related organisations for monitoring and bio-monitoring of emerging environmental pollutants

NORMAN's missions and objectives of the meeting

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NORMAN network – emerging environmental substances

Description:

- Network of reference laboratories, research centres and related organisations for monitoring of emerging environmental substances
- Former EU-funded project, established as a permanent network in 2009 (non-profit organisation)
- > 50 members from leading organisations in EU and beyond (19 **European countries and Canada)**

Mission:

- Exchange information on emerging environmental substances
- Improve data quality
- Promote synergies among research teams





NORMAN supports progress of knowledge on emerging contaminants

EMPODAT

Database

Occurrence
(Eco)toxicity

Prioritisation

Interlab studies

Non-target screening

Target screening

Relevant contaminants

Nontarget screening

Interlab studies

Data comparability

Effect-based analysis

NORMAN
MassBank
Identification of
unknowns

NORMAN network: some achievements

EMPODAT database:

- -Created and regularly maintained since 2006 (as part of the original NORMAN project)
- -In 2013 invited to become part of the Integrated Platform for Chemical Monitoring (IPCheM)

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MassBank Marmar

NORMAN MassBank:

-The NORMAN MassBank server was established in 2011

-NORMAN joined the global 'metabolomics' MassBank consortium NORMAN MASSBANK CONSORTIUM NORMAN MASSBANK (VANANA MASSBANK ip) in August 2012

(www.massbank.jp) in August 2012

NORMAN Framework for method's validation:

 Designed to support validation of measurement methods for monitoring of emerging contaminants

Today under negotiation at CEN: on its way to becoming a CEN
 Technical Specification (CEN TS, NWIP at CEN TC 230)

Passive sampling

Contribute 1 **OSAMO

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http://www.norman-network.net

NORMAN and passive sampling

What does NORMAN do andwhy are we here today?



Activities of NORMAN in passive sampling (Action leader: B. Vrana, WRI, SK; F. Smedes, Deltares, NL)

An expert group meeting on passive sampling in Prague in 2009



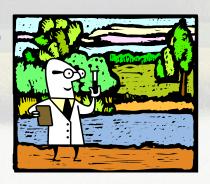
A position paper "Passive sampling of emerging pollutants in the aquatic environment: state of the art and perspectives" in 2010



An interlab. study organised by NORMAN and DG

JRC in support of CIS WFD in 2011 =>> Workshop

(29-30 October 2012, Ispra, Italy)





Follow-up...Passive sampling for compliance checking

- 11 substances will have EQS in biota (fish) in the « new » EQS Dir (2008/105/EC)
- Multiple factors affect pollutant levels in fish
 - data from chemical monitoring in biota are expected to be very variable
- Not much experience with biota monitoring in continental water:
 - Member States need detailed guidance for harmonised procedures
- Passive sampling :
 - easy to deploy, no maintenance required
 - can significantly reduce data variability (comparable worldwide)
 - a promising alternative (or complement) to biota monitoring for compliance checking and trend assessment
- However, not used for compliance checking because no EQS



Passive sampling for compliance checking: Questions to be discussed

- What data format is the most suitable for comparison of passive sampling results and EQS?
- How to adapt the EQS derivation procedure to allow comparison of passive sampling data with EQS?
- How can we deal with uncertainty of measurement by passive sampling AND uncertainty in derivation of EQS and still produce information that provides the required level of protection for the environment?



First expert group meeting in ecotoxicology and passive sampling

- Only invited experts
- This is not a workshop
- Outcomes of this meeting will need to be written in a report (Position paper) summarising the position of the experts on this high-priority topic (wide dissemination!)
- Objective of the discussion: agree on concrete guidance for WFD decision-makers for use of passive sampling for compliance checking and EQS derivation
- Definition of next steps, further meetings, organisation of further work, roadmap



Acknowledgment

 In kind contribution of RECETOX in the organisation of this Expert Group meeting











INVESTMENTS IN EDUCATION DEVELOPMENT



I wish you a fruitful meeting!







NORMAN interest in passive sampling

- Non-mechanical devices (easy to deploy and require no maintenance)
- Measurement of a freely dissolved concentration of contaminants in water (=> relevant extracts for toxicity testing)
- Continuous sampling measurement of TWA concentrations (=> monitoring of peak events)
- Extremely low limits of detection (low pg/L level)
- Worldwide comparable

