



# The NORMAN network on emerging environmental substances

[www.norman-network.net](http://www.norman-network.net)

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# Network of reference laboratories, research centers and related organisations for monitoring of emerging environmental substances

## Working Groups

- Former EU-FP6 project (2005-2008), established as a **permanent network (NORMAN Association) since 2009**
- >70 members from EU leading organisations (from 21 European countries, Canada, US)

### Mission:

- **Exchange information** on emerging substances
- Improve **data quality**
- Promote **synergies** among research teams and **more efficient transfer** of research findings to **policy-makers**





# Network of reference laboratories, research centers and related organisations for monitoring of emerging environmental substances

## Working Groups

1) Prioritisation

2) Bioassays

3) Effect-Directed Analysis

4) Engineered Nanomaterials and microplastics

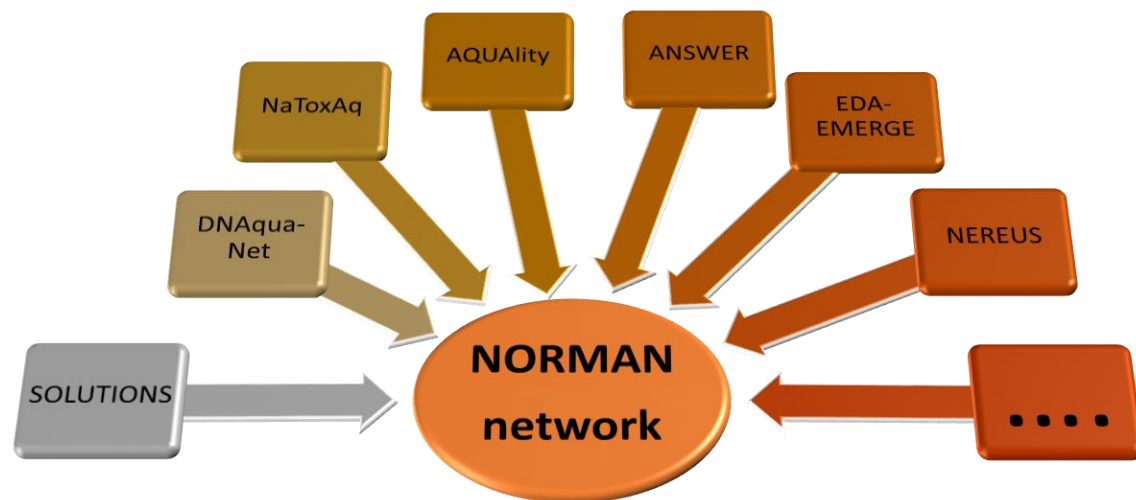
5) Wastewater reuse

6) Indoor environment

+ 2 Cross-WG: Passive sampling and NT screening



# NORMAN: an exchange platform to increase synergies in research



**NORMAN interacts as efficiently as possible with ALL research projects dealing with emerging contaminants (national and international initiatives):**

**increased visibility of the results and faster implementation in policies**

# Data quality and harmonisation of monitoring methods

## Common framework for validation of chemical and biological monitoring methods

Adopted as CEN  
Technical Specification:  
CEN TS 16800:2015



## ILS on priority research substances

Brominated FR (2008)

Non-steroidal  
anti-inflammatory drugs  
(2008)

PFASs (2010)

Organophosphorous FR  
(2012)

## ILS for harmonisation of new techniques

Passive sampling for CECs (2011)

Non-target screening for water  
monitoring (2013)

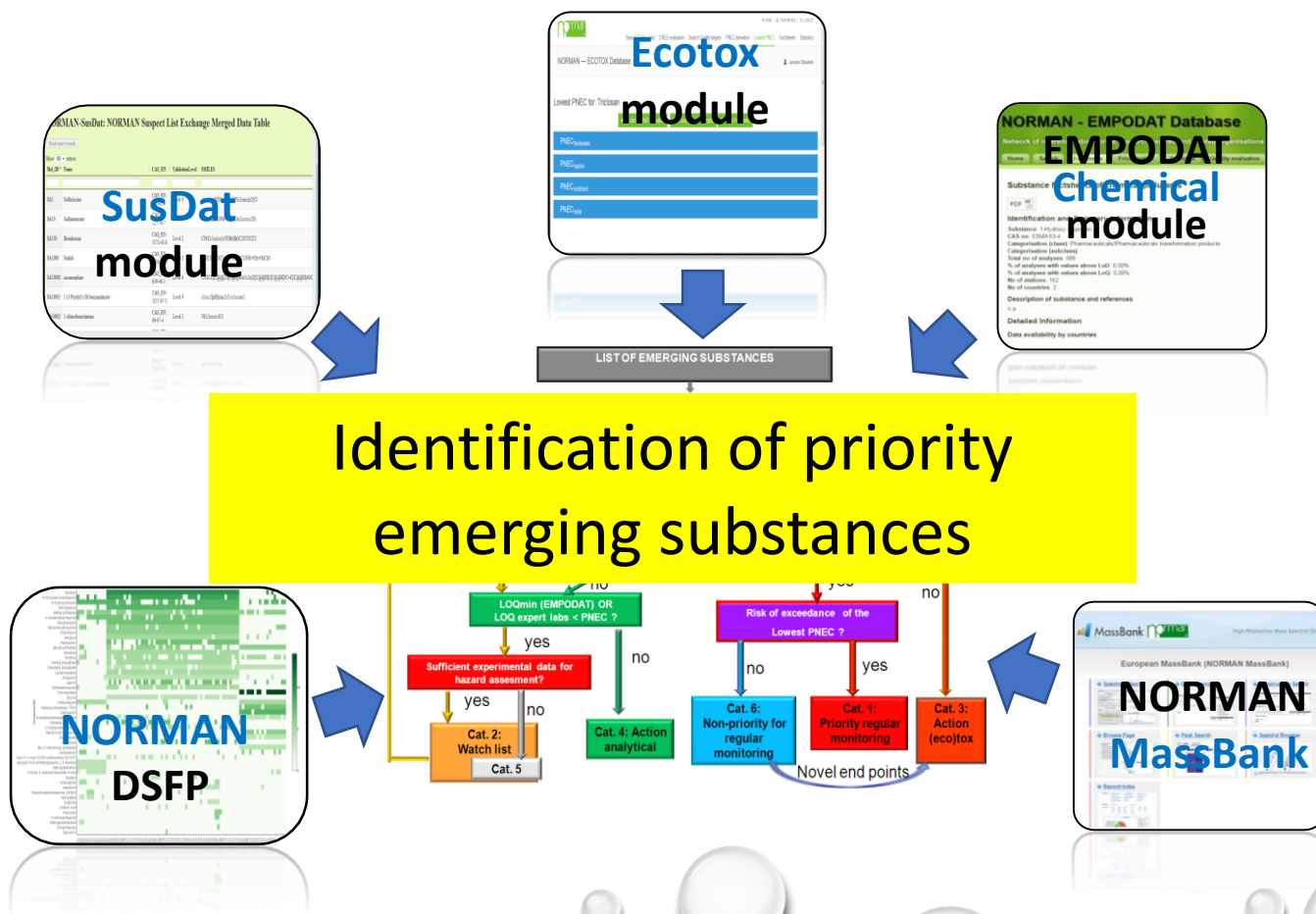
Battery of bioassays for water  
quality assessment (2015)

Non-target screening of dust  
(2016-2017)

Bioassays for genotoxicity testing  
(2018)

Bioassays for neurotoxicity testing  
(2018)

# NORMAN database system FOR Identification of Priority emerging substances



# SCIENCE-POLICY INTERFACE: CONNECTING WORLDS



## Science

Understanding the world

- Reliable analytical tools
- Potential effects
- Concepts/models
- Research results
- Uncertainty evaluation



## Policy

Managing the world

- Risks (no risks)
- Responsibility
- Use of data
- Regulation
- Planning

## NORMAN

*Prioritisation*  
*Databases*  
*Workshops*  
*Validation & QA/QC*  
*Harmonisation*  
*EC WGs participant*



# NORMAN in the EU and international policy scene

- **NORMAN represented as a stakeholder:**

- WG Chemicals of DG ENV (CIS – WFD)
- JPI Water Knowledge Hub on Emerging substances
- WHO Emerging Risks Network

- **NORMAN participates in EU consultation initiatives:**

- EU consultation Fitness Check WFD – on going
- EU consultation on options for a strategic approach to pharmaceuticals in the environment – Jan 2018;
- Comments on UBA “Proposal for implementing criteria and an assessment procedure to identify Persistent, Mobile and Toxic (PMT) and very Persistent, very Mobile (vPvM) substances registered under REACH” – April 2018.

- **NORMAN publishes positions papers and recommendations:**

- NORMAN / SOLUTIONS paper: 10 Recommendations for the review of the WFD :

*W. Brack, et al., Science of The Total Environment, Volume 576, 15 January 2017, Pages 720–737.*



# Why this workshop in collaboration with

- Many projects dealing with CECs in urban wastewater: overview of the recent research findings
- Fitness check of many EU directives is underway
- Questions we aim to address in this workshop:
  - *Is it possible to define a common list of “European CECs”, or groups of compounds with specific characteristics, as “priority” compounds for urban WW?*
  - *What are the priority targets for innovative treatment technologies? (taking into account climate change, demographic development, circular economy, etc.)*
  - *What are the tools available today to monitor the performance of treatment technologies?*
  - *What are the recommendations for policy review?*



**Wishing you fruitful discussions at this  
workshop and beyond !**

