



The NORMAN Network on emerging substances

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

Working Groups

- Former EU-funded FP6 project (2005-2008), established as a **permanent network (NORMAN Association) since 2009**
- >60 members from EU leading organisations (from 19 European countries and Canada)

1) **Prioritisation**

2) **Bioassays**

Mission:

3) **Effect-Directed Analysis**

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

4) **Engineered Nanoparticles**

5) **Wastewater reuse**

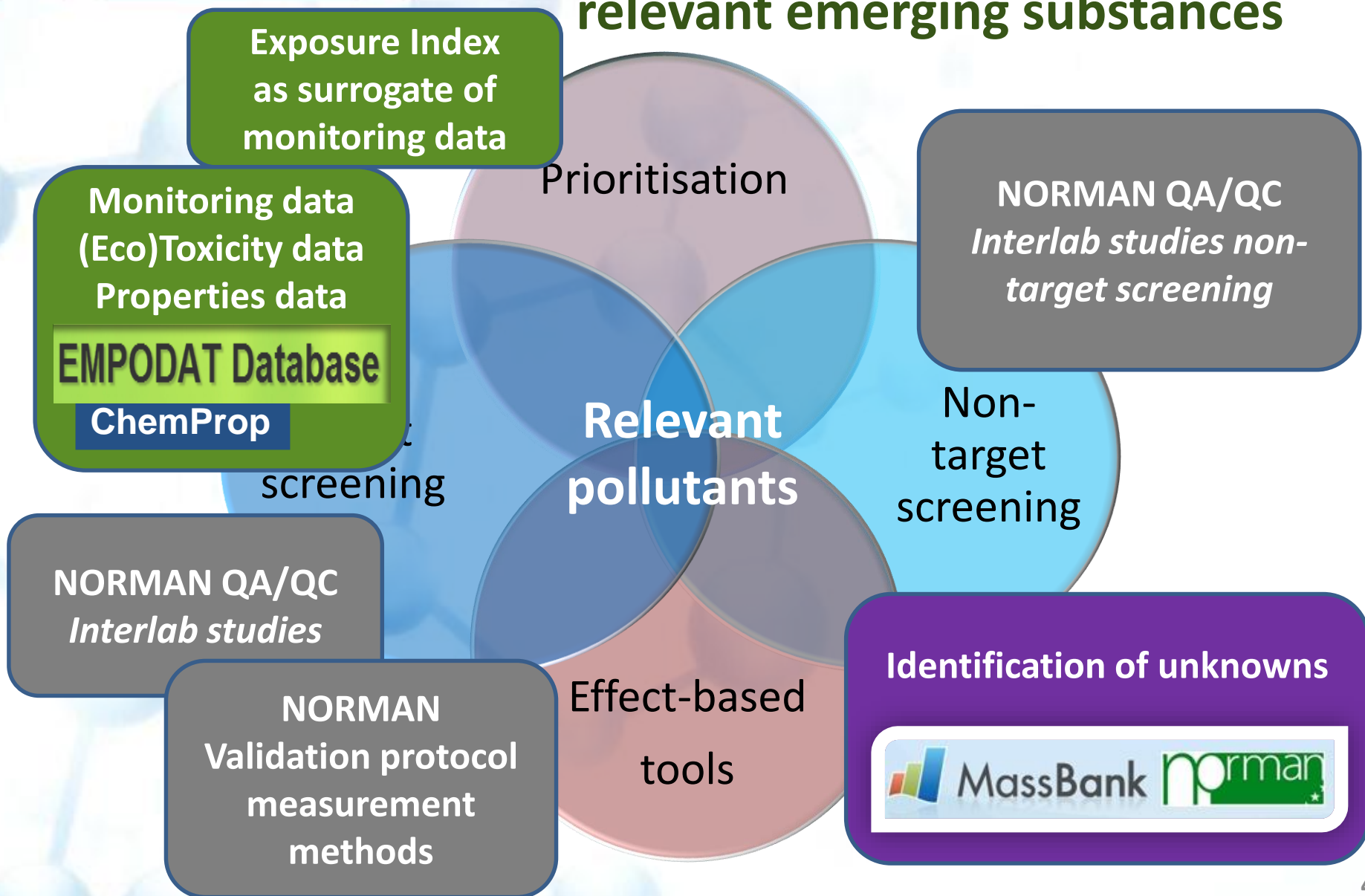
6) **Launch in 2014: Indoor environment**



Emerging substances and emerging risks

- Substances not included in regular monitoring programmes
- Present in the environment (all compartments)
- Chronic effects at low doses
- Candidates for future regulations
 - Research results about their effects and associated risks on human health and ecosystems

NORMAN strategy for identification of relevant emerging substances





NORMAN activities

Working Groups

NORMAN Bulletin

NORMAN
Network of reference laboratories, research centres and related organisations for monitoring emerging environmental substances

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- Topics and Activities
- Workshops and Events
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WELCOME TO THE NORMAN NETWORK

The NORMAN network enhances the exchange of information on emerging environmental substances, and encourages the validation and harmonisation of common measurement methods and monitoring tools to meet the requirements of risk assessors and risk managers in the field of emerging substances.

Who should be part of the network?

All interested stakeholders dealing with emerging substances – whether in studying their occurrence and effects or risk assessment and risk management:

- Competent authorities / Reference laboratories: i.e. institutes and organisations designated by the competent authorities at national level to offer technical and scientific support in specific fields related to environmental protection.
- Research centres and academia.
- Industry stakeholders.

Highlights

- New NORMAN Working Group on Indoor Environment and contaminants of emerging concern - Kick-off meeting, 8-9 December 2014, at IVM, Amsterdam
- 6th NORMAN General Assembly meeting took place on 9-10 December at IVM, Amsterdam
- Workshop on 'Passive Sampling for monitoring of contaminants in the aquatic environment: Achievements to date and future perspectives'
- Screening campaign of selected antibiotic resistance determinants and mobile genetic elements (AR/MGE) in WWTPs in Europe - announcement and invitation for participation
- Cost Action ES1403 - New and emerging challenges and opportunities in wastewater reuse - NEREUS

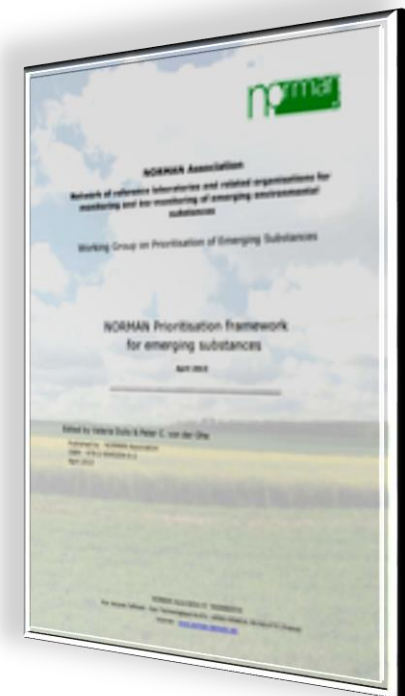
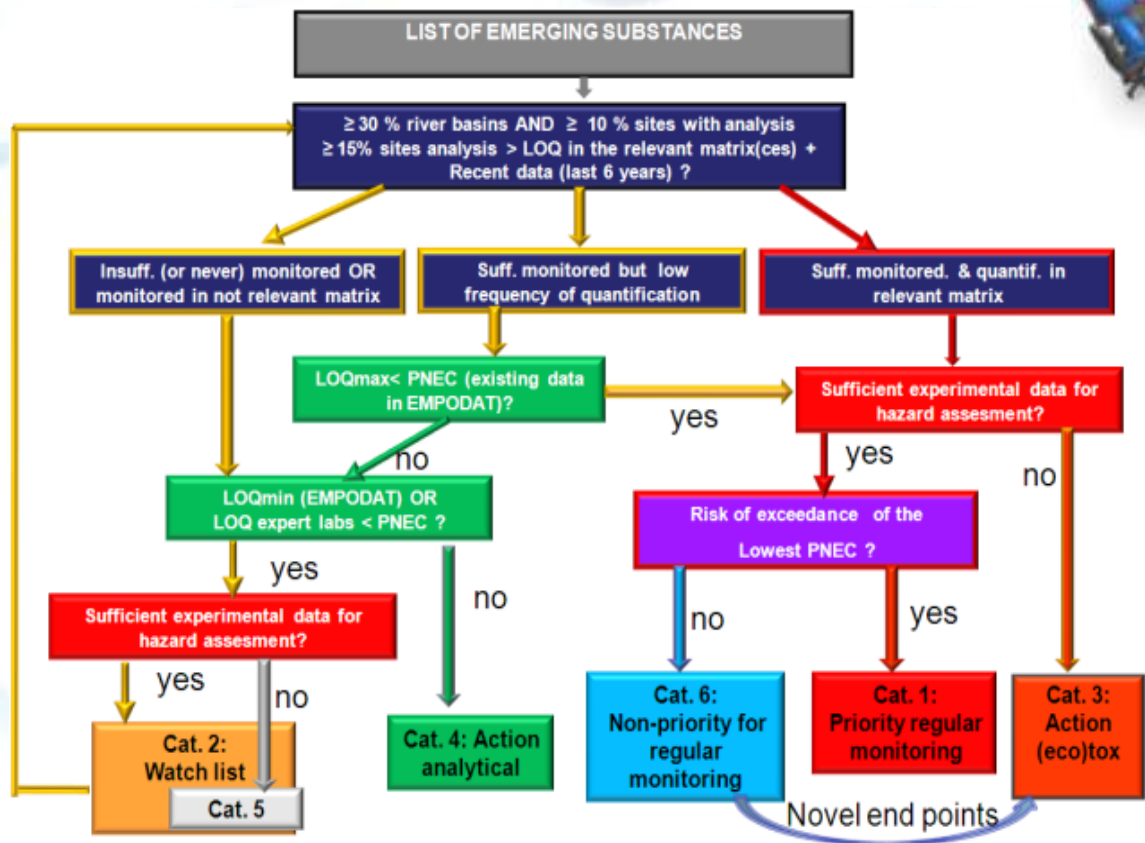
[ARCHIVE](#)

Recent events

Date	Title
17-20-2014	

Interlaboratory studies

<http://www.norman-network.net/>



- **NORMAN Prioritisation scheme for emerging substances (V. Dulio & P.C. von der Ohe, 2013, ISBN : 978-2-9545254-0-2)**
- **Prioritisation by action categories (on the basis of identified knowledge gaps)**

Recommended substances to EC

- Recommended substances & Factsheets submitted by NORMAN in August 2014

Top-ranked compounds NORMAN Cat 1

Substance	CAS No#
Bisphenol A	80-05-7
Di-n-bu-tylphthalate (DBP)	84-74-2
Triclosan	3380-34-5
Diazinon	333-41-5
Terbuthylazine	5915-41-3
Carbamazepine	298-46-4
Estrone	53-16-7
Diclofenac	15307-86-5
Ibuprofen	15687-27-1
Bentazone	25057-89-0
Metolachlor	51218-45-2

Top-ranked compounds NORMAN Cat 2

Substance	CAS No#
Aminotriazole	61-82-5
Azithromycin	83905-01-5
Ethylhexyl methoxycinnamate	5466-77-3
Diflufenican	83164-33-4
Ofloxacin	82419-36-1
Clarithromycin	81103-11-9
Erythromycin	114-07-8
Triphenyl phosphate	115-86-6
Ciprofloxacin	85721-33-1
Dimethenamid	87674-68-8
Methiocarb	2032-65-7
Oxadiazon	19666-30-9

NORMAN contribution to EC: Key results

- NORMAN indicators are included in the EC prioritisation methodology
- EMPODAT is used as an important data source to support EU Watch List and PS review
- NORMAN Factsheets used to support conclusions about Watch List substances





NORMAN EMPODAT Database

Search

Factsheets

Statistics

NORMAN - EMPODAT Database

Network of reference laboratories, research centres and related organisations for monitoring

Home Search Factsheets Statistics Quality evaluation Data Download DCT

Search the database

Please select fields in which you want to search

Search options

- At least one of the selected criteria must comply
- All the selected criteria must comply

If no criteria is selected, the result of search will be the overall database.

Exporting of data into excel is possible only for single matrix, since the structure of datasets is different for each

Search criteria (for selection of multiple items hold down the CTRL key):

Country

- Austria
- Belgium
- Bulgaria
- Croatia
- Cyprus

Ecosystems/matrices

- Water - Surface water - River water
- Water - Surface water - Lake water
- Water - Surface water - Transitional water
- Water - Surface water - Coastal water
- Water - Surface water - Territorial (marine) water

Sampling site/station

Determinand/measurand

6.5 Millions datasets

43

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Information Platform for Chemical Monitoring

Who is participating

IPChem is an initiative of the European Commission, coordinate by Directorate-General Environment (Chef de File) and Joint Research Centre (technical coordinator, IES and Module Coordinator for "Product and Indoor air, IHCP).

These are the institutions currently involved in the implementation of IPChem and data provision. The list is constantly updated.

European Agencies

- efsa** European Food Safety Authority (Module Coordinator "Food & Feed monitoring")
- eea** European Environmental Agency (Module Coordinator "Environment and Human biomonitoring")
- ECHA** European Chemical Agency (member)

National Bodies

- Bundesamt für Umwelt** Federal Environmental Agency - UBA (Germany)
- Federal Public Service Health, Food Chain Safety and Environment** - Belgium
- Flemish Centre of Expertise on Environment and Health** - Belgium

Research and Academia

- soluti@ns SOLUTIONS**
- norman** NORMAN Association

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<http://www.norman-network.net/empodat/>

ALL data accessible!

Improving harmonisation and quality of monitoring data

Non-target screening activity

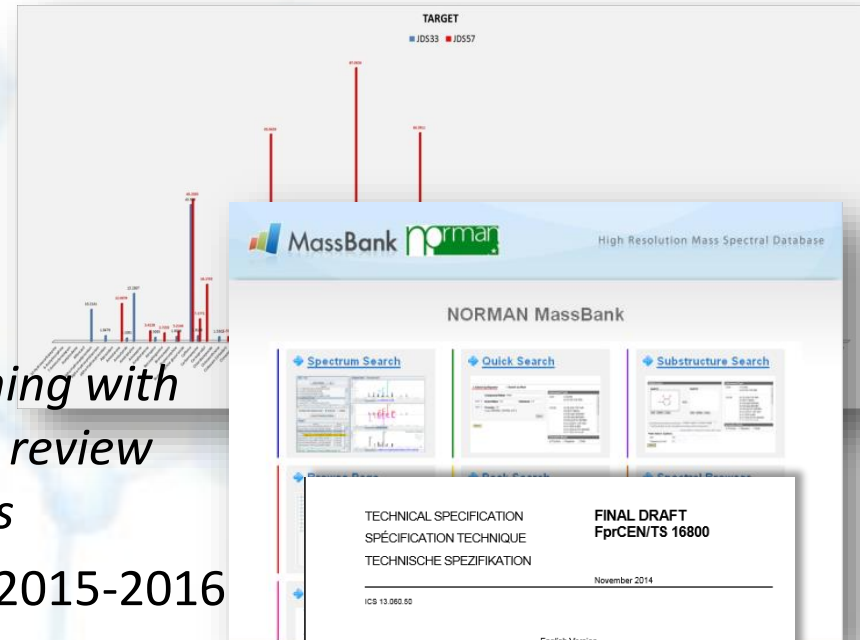
Collaborative trial **non-target screening** of river water samples **2013-2014**

- **First time** worldwide
- Schymanski et al. (2015) *Non-target screening with high-resolution mass spectrometry: critical review using a collaborative trial on water analysis*
- A NEW Collaborative Trial (indoor dust) in 2015-2016

Methods validation protocol

Designed by **NORMAN** to support the **harmonised validation of measurement methods** for monitoring of emerging contaminants

Now approved at CEN level (WI 00230307 at CEN TC 230 Water Analysis) for implementation in European Standardisation



TECHNICAL SPECIFICATION
SPÉCIFICATION TECHNIQUE
TECHNISCHE SPEZIFIKATION

FINAL DRAFT
FprCEN/TS 16800

November 2014

ICS 13.080.00

English Version
Guideline for the validation of physico-chemical analytical methods


Lignes directrices pour la validation des méthodes d'analyse physico-chimiques
Anleitung zur Validierung physiko-chemischer Analysemethoden

This draft Technical Specification is submitted to CEN members for formal vote. It has been drawn up by the Technical Committee CEN/TC 230.

CEN members are the national standards bodies of Austria, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, Former Yugoslav Republic of Macedonia, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey and United Kingdom.

Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning: This document is not a Technical Specification. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a Technical Specification.

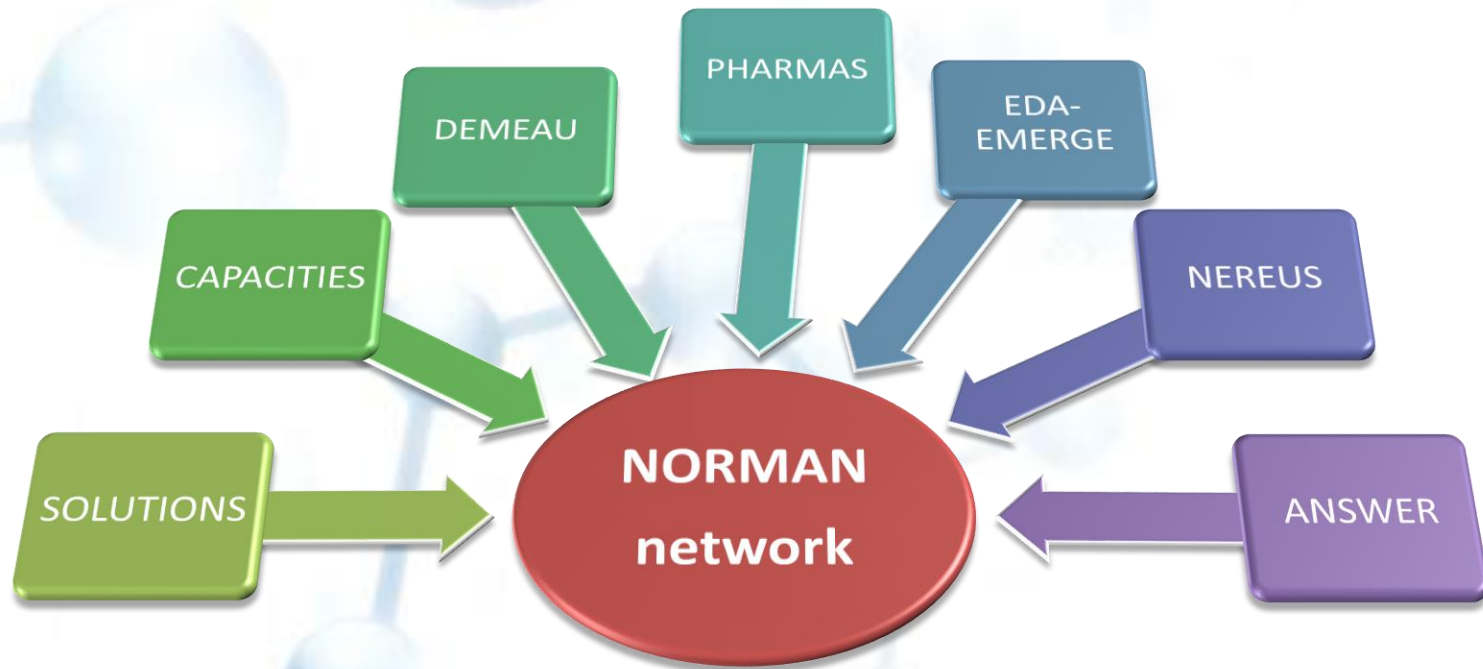


EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
EUROPEISCHES KOMITEE FÜR NORMUNG

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AS4-Shop 31.08.2015



NORMAN needs to **interact as efficiently as possible** with ALL research projects dealing with emerging contaminants (national and international initiatives)

NORMAN provides seed money.....

- For promising projects
- With applications towards policies
- Strategic vision for the future



Way forward

- NORMAN's place in the area of water contaminants is now well established

Contaminants of emerging concern in indoor environment

Improve knowledge & science to policy interface

e)

Resistance bacteria and

