NORMAN
Network of reference laboratories for monitoring of emerging substances
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Emerging environmental substances

- Substances not included in routine monitoring programmes
- Present in environment
- Candidate for future regulations
  - Research on effects/occurrence
Emerging environmental substances

- Algal toxins
- Anticorrosives
- Antifoaming agents
- Antifouling compounds
- Antioxidants
- Biocides
- Bio-terrorism/ sabotage agents
- Complexing agents
- Detergents
- Disinfection by-products (drinking water)
- Flame retardants
- Fragrances
- Gasoline additives
- Industrial solvents
- Nanoparticles
- Perfluoroalkylated substances and their TPs
- Personal care products
- Pesticides
- Pharmaceuticals
- Trace metals and their compounds
- Wood preservatives
- Other

Emerging substances - Frequently Asked Questions

- Should we eventually monitor the whole universe of chemicals and their mixtures?
- If not all – which ones?
- Are the substances we find toxic?
- Should some of the substances be monitored on a regular basis? If so, at which concentration levels?
- Is there enough scientific evidence to make decisions implying high costs?
- Can we trust the data?
- Who else is dealing with the substances we found?
NORMAN - FP6 - Coordination Action - Priority 6.3

- Coordination: INERIS
- Start date: 1/9/2005
- Duration: 3 years
- 17 partners

NORMAN objective

- **Creation of a permanent network** among national reference laboratories and research centres
  - Collaboration with the parties involved (industry, standardisation bodies, NGOs, etc.)
NORMAN goals

- More rapid and wide-scope exchange of data and information on emerging substances
- Better data quality and comparability via validation and harmonisation of common measurement methods and monitoring tools
- More transparent information: information, not only data
- Independent and competent forum for the technical/scientific debate on issues related to emerging substances

NORMAN today

- Scientific watch and information exchange
  - Literature research - databases
  - Workshops - 4 events
  - NORMAN Contact Points
- Collection/evaluation of data
  - Three web-based databases (EMPO-MAP, -DAT, -MASS)
- Validation and harmonisation
  - Common European protocol for method validation
Navigating NORMAN databases

Mass spectra + num info
-for not yet identified substances

Occurrence:
-list of metadata
-what this data represent?

Effects:
-bioassays, biomarkers

Experts:
- A. Bbb
- B. Bee
- C. Bdd

Institutes:
- X. Bbb
- Y. Bee
- Z. Bdd

Projects:
- Modelkey
- PERFORCE
- Sednet

Institute Y - Projects
- NORMAN
- KNAPPE
- PERFORCE

Empomap: available on the NORMAN website
you are invited to register as an expert and/or organisation + projects
NORMAN today

- **Scientific watch and information exchange**
  - Literature research - databases and newsletter
  - Workshops - 4 events
  - NORMAN Contact Points - info gathering

- **Collection/evaluation of data**
  - Three web-based databases on emerging substances (EMPO-MAP, -DAT, -MASS)

- **Validation and harmonisation of methods**
  - Common European protocol for method validation

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Common European protocol for method validation
three levels of validation

- **Research method, incomplete internal validation, probably not applicable for organism, compartment or matrices of interest**
  - Validation Protocol V1

- **Method applicable by research labs (complete internal validation)**
  - Validation Protocol V2

- **Method applicable by expert labs (transferable to another lab with sufficient expertise)**
  - Validation Protocol V3

- **Method applicable by routine labs (comprehensive external validation)**
Procedure for development & implementation

VALIDATION: Development of protocols

Inter-laboratory studies (TEST PHASE)
- Oestrogens in wastewaters
- Non-steroidal anti-inflammatory drugs in waters
- DecaBDE in dust

VALIDATION: Improvement & Implementation

New Work Item proposals at CEN for development of guidelines or CEN TR

NORMAN tomorrow?

A self-sustainable permanent network
Provide QA tools
- Identify substances of high priority
- Check availability of methods and status of validation
- Bring together experts, PT providers or other bodies for rapid organisation of studies for method validation
- Guidance on validation at various levels according to the needs of the customers

Network of reference laboratories

- **Reducing time** from “discovery” of an emerging pollutant to the production of reliable results (chemical and biological)
  - Scientific basis for decision-making
- **Scientific watch** to advise authorities and anticipate research needs
- **Independent and competent forum** for the technical/scientific debate on issues related to emerging substances
- **Ensuring the synergy** among the various research programmes dealing with emerging pollutants
Next NORMAN Workshop

New tools for bio-monitoring of emerging pollutants

Autumn 2007, Amsterdam