

# Emerging pollutants in the EU – 10 years of NORMAN in support of environmental policies and regulations

NORMAN is an independent and highly recognised network of reference laboratories, research centres and related organisations for the monitoring of contaminants of emerging concern.

#### Norman history

Since its creation as an EU project in September 2005 the NORMAN Network has developed into a not-for-profit, independently-funded organisation with more than 70 members worldwide. NORMAN facilitates the exchange of data and information on emerging substances, and fosters debate and research collaboration in environmental science and policy-making in Europe and beyond.

#### What is Norman doing?

In its role as a leading interface between science and policy-making, NORMAN promotes the use of innovative monitoring and assessment tools to support identification and risk assessment of substances of emerging concern. NORMAN systematically collects information and data to evaluate the risk of substances of emerging concern to the environment and regularly updates its list of the most frequently discussed emerging substances. NORMAN maintains a unique and publicly available database on the occurrence and effects of emerging substances which robustly supports the development of policy and regulation.

#### **Emerging substances**

Emerging substances are chemicals that are currently not regulated but may be candidates for future regulation. Emerging substances are not necessarily newly developed chemicals. They include also substances that may have long existed in the environment and whose presence are only now beginning to be investigated. They include surfactants, flame retardants, pharmaceuticals, personal care products, gasoline additives, biocides, plant protection products and suspected endocrine disrupting compounds.

#### Why should we be concerned?

In spite of major progress in the regulation of chemicals, there are still chemicals that are present in the environment that may have deleterious effects on ecosystems and/or human health. Information on these effects cannot be understood without first: 'developing analytical methods to determine occurrence of these substances in the environment; understanding how they may be released or formed; and identifying their potential environmental effects from exposure.



The enormous commitment shown by the NORMAN member organisations and the dedication of their representatives have made the NORMAN success stories possible. We plan to continue to facilitate this creative process in pursuit of our vision.

## **5 NORMAN visions**

- Independent, transparent and open network working for a sustainable environment without harmful substances
- Go-to organisation for issues on emerging substances in the environment
- Watch-dog and alarm bell for emerging environmental threats
- Bridge between science and policy-making
- Platform for innovative bottom-up initiatives to explore new monitoring challenges

### 10 Norman success stories

- NORMAN EMPODAT is today the largest database on emerging substances worldwide with more than nine million data records
- Innovative, widely accepted approach for EU prioritisation of emerging substances
- First collaborative trial on non-target screening for environmental monitoring
- The EDA Guidance, a comprehensive, practical guidance and a reference document on effect-directed analysis supporting monitoring of the aquatic environment
- Screening of antibiotic resistance in wastewater treatment and reuse systems across Europe
- NORMAN MassBank, an open-access database for the collection and interpretation of mass spectral data of environmental contaminants
- New Working Group on emerging substances in the indoor environment and first collaborative trial on non-target screening of household dust
- Interlaboratory study on passive sampling for monitoring organic chemicals in water
- Interlaboratory study on gold nanoparticles to evaluate the suitability of current analytical techniques to support the EC Recommendation (2011/696/EU) for the definition of a nanomaterial
- NORMAN protocol for validation of chemical and biological monitoring methods adopted as EN Technical Specification: CEN TS 16800:2015

NORMAN is a stakeholder in the "Chemicals" Working Group of the European Commission and member of the advisory boards of numerous EU-funded research projects and initiatives. Over the last ten years Norman has brought together monitoring experts in more than 30 meetings. See summaries and reports at www.norman-network.net.





