NORMAN

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

Now available: NORMAN's new two-stage procedure for prioritising emerging substances

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The list of chemical compounds that are frequently discussed in the literature as "emerging substances" is ever growing. The '2010 NORMAN list' contains over 700 emerging substances, selected by NORMAN experts, drawing on expert judgment and the scientific literature.

The NORMAN's two-stage procedure for prioritising emerging substances is specially designed to allow for prioritisation of emerging substances in the aquatic environment, taking into account the associated knowledge gaps and actions needed.

The NORMAN scheme uses a decision tree that first classifies chemicals into six categories depending on the information available (Figure 1).

Existing knowledge gaps (e.g. insufficient information on the occurrence or effects of emerging substances, inadequate performance of the analytical methods for quantifying their level of occurrence in the environment) **do not allow an emerging substance to be correctly evaluated and may lead to its being discarded or overlooked if conventional prioritisation methodologies are applied.**

The priority within each category is then evaluated based on specific properties indicators such as, persistence, bioaccumulation potential, toxicological and ecotoxicological effects and, on risk assessment indicators such as, the Frequency of Exceedance and Extent of Exceedance of Predicted No-Effect Concentrations (PNECs).

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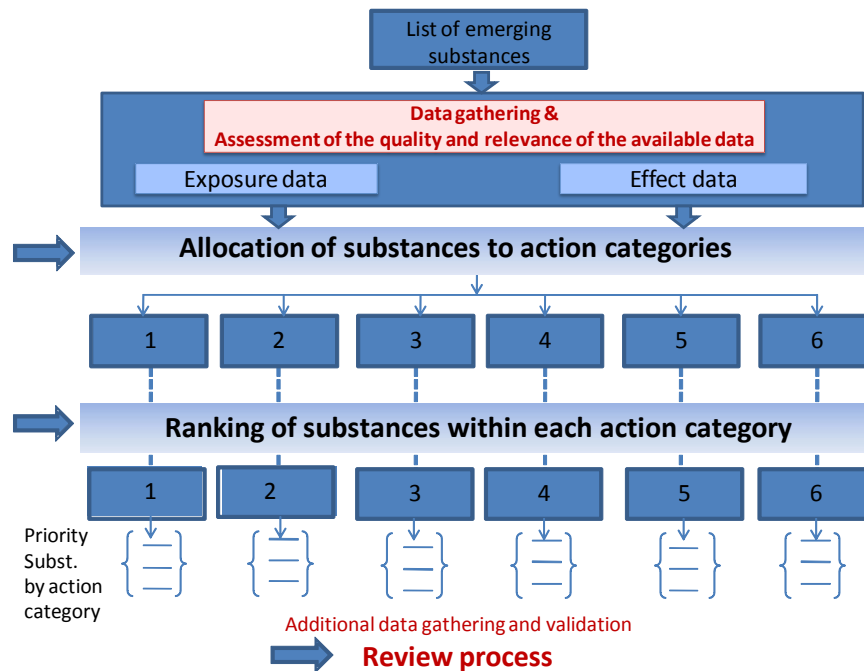

Figure 1: Flow chart of the methodology for categorisation and ranking of emerging substances

The overall **iterative process** involves a periodic revision of the priority substances in each category whenever e.g. new information / more reliable data are generated or feedback from applied reduction measures is available.

The scheme is already integrated in the web-based NORMAN EMPODAT database, as a tool for prioritisation of the NORMAN substances using systematically collected datasets.

This innovative scheme can be applied for **prioritisation of substances** at different geographical scales and it is addressed to water managers and competent authorities that are aiming to identify priority substances **at national, river basin and European level.** It provides decision-makers with a common framework for the creation and updating of the lists of chemical substances for which actions to reduce, monitor or gather scientific or technical data are to be undertaken as a matter of priority.

You can find more information about the NORMAN network activities including prioritisation efforts and NORMAN databases at http://www.norman-network.net; contact: Valeria.Dulio@ineris.fr.