

## Proposals for NORMAN Joint Programme of Activities 2026

Title	<b>Guidance for Selecting PMT/PBT Classification Methods: Combining results, mapping Assumptions and Use Cases</b>
Type of activity	Expert Group (in collaboration with WG-1)
Leader	Ineris, RIVM, NIVA, IVL, NILU, IRFMN, UBA
Topic / activities	<p><b>Background / Justification for the proposed activity:</b></p> <p>PBMT criteria play a critical role in guiding chemical prioritization decisions. The relative importance of these criteria, as well as their application, can vary depending on the objectives of the prioritization study, the protection goals, and other contextual factors.</p> <p>The recently developed <b>NORMAN Hazard classification module</b> is meant to collect and process in a transparent and consistent way data from different sources and assess the data for final classification of the individual substances based on common criteria and consensus.</p> <p>Besides, several tools and methodologies are currently used to classify substances based on their Persistent (P), Bioaccumulative (B), Mobile (M), and Toxic (T) properties. Examples include the <b>PikMe tool</b> (NIVA), the <b>RIVM PBT and PMT screening tool</b>, the <b>Hazard Profiling Tool</b> (IVL), <b>Janus</b> (VEGA HUB).</p> <p>All these approaches may differ in their underlying assumptions, data sources, scoring systems, and objectives (e.g., regulatory prioritization versus research screening). This diversity reflects the complexity of PBMT assessment but can also lead to confusion or inconsistent application if users are unaware of these differences.</p> <p><b>Description of the proposed activity and expected outcomes for 2026:</b></p> <p>The objective of this action is not to establish a single harmonized method, but rather to develop the NORMAN PBMT classification as a workflow combining the results of the different screening tools and methodologies accompanied by a guidance document that:</p> <ul style="list-style-type: none"> <li>- <b>Maps existing PMT / PBT classification, screening tools and methodologies</b>, highlighting their workflow, assumptions, strengths, limitations, and intended use cases.</li> <li>- <b>Provides clear guidance</b> for selecting the most suitable approach(es) depending on the context (e.g., regulatory screening, research prioritisation, monitoring programme design).</li> <li>- <b>Promotes transparency and comparability</b> by documenting differences in scoring systems, data sources and requirements, and uncertainty handling.</li> </ul> <p><b>Planned Activities:</b></p> <ul style="list-style-type: none"> <li>- Systematic review and comparison of PMT / PBT scoring criteria and workflows, cut-off values, data sources, and reliability assessments across existing tools (e.g., PikMe, RIVM PMT tool, Janus, NORMAN hazard module).</li> <li>- Workshops and expert discussions to capture assumptions, objectives, and practical experiences from tool developers and discuss how the results of the different screening tools and methodologies could be incorporated into a NORMAN PBMT classification decision tree.</li> <li>- Development of a guidance document for the NORMAN network and external stakeholders that includes: <ul style="list-style-type: none"> <li>• A catalogue of tools with detailed descriptions.</li> <li>• A decision-support framework for choosing the appropriate method.</li> <li>• Recommendations for handling uncertainty and missing data.</li> </ul> </li> <li>- Integration of the guidance (workflow) into the NORMAN Database System (NDS), ensuring easy access for stakeholders.</li> <li>- Implementation of the NORMAN PBMT classification in the NDS, with clear documentation and user support.</li> </ul> <p><b>Expected Outcomes:</b></p> <ul style="list-style-type: none"> <li>- A comprehensive guidance document/ workflow classification methods based on P,B,M, T criteria, enabling informed selection rather than enforcing standardisation.</li> <li>- Improved transparency on assumptions and objectives behind each methodology.</li> <li>- Better alignment of tools' use with regulatory and research needs, while preserving methodological diversity.</li> </ul>

	<p><b>Added value / Link with other NORMAN activities and / or other projects</b></p> <ul style="list-style-type: none"> <li>- Supports prioritisation workflows in Working Groups on monitoring, ecotoxicology, and risk assessment.</li> <li>- Facilitates integration with NORMAN's hazard scoring module and database systems.</li> <li>- Provides a foundation for dialogue with regulators on method selection and interpretation.</li> </ul> <p><b>Expected challenges and limitations in developing a NORMAN PBMT Classification workflow based on existing screening tools and methodologies</b></p> <ul style="list-style-type: none"> <li>- Diverse definitions and criteria: Existing tools (e.g., PikMe, RIVM PMT tool, Norman hazard module, Janus) use different definitions, cut-off values, and scoring systems for persistence, bioaccumulation, mobility, and toxicity, which may complicate direct alignment.</li> <li>- Data source variability: Tools rely on a mix of experimental, predicted raw data as well as already existing regulatory classifications data, with varying reliability and completeness, making standardisation difficult.</li> <li>- Uncertainty: Approaches to uncertainty (e.g., missing data, applicability domain, reliability scores) differ, which makes it challenging to integrate the results into a unified NORMAN PBMT classification..</li> <li>- Purpose-specific workflows: Prioritisation exercises are often tailored to specific regulatory or research objectives. This influences the chosen method and the results.</li> <li>- Technical integration: Integrating multiple tools and modules into the Norman database system will require technical coordination and ongoing maintenance.</li> <li>- Stakeholder alignment: Achieving consensus among diverse stakeholders (tool developers, regulators, researchers) may require extensive discussion and compromise.</li> <li>- Evolving science and regulation: PMT/PBT criteria and regulatory requirements may change over time, necessitating regular updates and documentation of the NORMAN prioritization tool.</li> </ul> <p>There is general concern about persistency and extreme persistence and the effects these substances can have on human and environmental health. An automated workflow for categorizing substances as PMT/PBT will facilitate and guide research efforts on other NORMAN activities devoted to understanding toxic effects (ecotax database), prioritizing or developing chemical analytical tools.</p>
<b>Participants</b>	<p>Ineris, NIVA, RIVM, UBA, IVL, NILU, IRFMN</p> <p>This action will involve tool developers (e.g., PikMe, RIVM PBT &amp; PMT screening tool, NORMAN Hazard Module, Janus), data providers, and interested Norman network members. All are invited to contribute to workshops, data sharing, and framework development.</p>
<b>Proposed in-kind contribution</b>	
<b>Contribution needed from NORMAN Association<sup>1</sup></b>	No budget requested

<sup>1</sup> Please, provide here a transparent justification of the requested resources and of the in-kind contribution, thereby distinguishing between the costs associated with "person-months" for the organisation, the "travelling costs" for invited speakers and the costs for the logistics (e.g. meals, room rental etc.)