



Proposals for NORMAN Joint Programme of Activities 2023

Title	Effect-based methods as tools for characterization and hazard assessment of contaminated soil
Type of activity	Online seminar
Leader	Magnus Engwall, Maria Larsson, MTM, Örebro University
Topic / activities	<p>Background / Justification for the proposed activity:</p> <p>In Sweden, a survey of soil contamination made by the Swedish Environmental Protection Agency has revealed there are over 80000 contaminated areas. These areas have often been locations of various industrial activities like gas production, wood impregnation, manufacturing industries etc. The chemical contamination is generally very complex with various combinations of heavy metals, PAHs, dioxins, pesticides and PFAS. Often, these sites are situated on very attractive locations close to water and at strategic locations in or close to urban areas and are therefore interesting for building residential housing or offices. The current legislation for remediation action is based on limit values for a small selection of these chemicals. For PAHs, limit values are based on 16 PAHs, while the actual PAH contamination, if including polyaromatic compounds may include hundreds to thousands of chemicals. The effect-based approach is therefore a promising tool to achieve a much more comprehensive characterization and hazard assessment. This characterization can also be complemented with iceberg modelling and EDA studies. At MTM, Örebro University, we have explored this approach in several projects since 2005.</p> <p>Description of the proposed activity and expected outcomes for 2023:</p> <p>The goal of the seminar is to present findings from effect-based characterization, iceberg modelling and EDA studies of contaminated soil and discuss ways forward to implement this approach as a complementary tool in hazard and risk assessment and as a guidance for remediation of contaminated terrestrial areas. The possibility to develop effect-based trigger values for soil will also be discussed. Development of a toolbox for effect-based characterization of soil is a projected future outcome. This could be used for monitoring, hazard assessment and as a guidance in remediation actions in preparation for safe societal use of the areas.</p> <p>Added value / Link with other NORMAN activities and / or other projects</p> <p>The seminar will spread new tools and findings in the application of effect-based tools, iceberg modelling and EDA in the terrestrial environment.</p> <p>The seminar is connected to WG2, WG3 and WG7 and to PARC, WP4 (effect-based tools, NTS and EDA) and WP8 (Early warning system).</p>
Participants	All NORMAN members are invited.
Proposed in-kind contribution	Organising and presenting at the seminar will be done by MTM, Örebro University.
Contribution needed from NORMAN Association¹	Help with distribution of info about the seminar.

¹ 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.)