

Proposals for NORMAN Joint Programme of Activities 2022

Title	WG-6: Emerging substances in the indoor environment 2022 – Coordination and finalizing activities
Type of activity	Working group
Leader	NILU, VU, UA
Topic / activities	<p>Background / Justification for the proposed activity:</p> <p>Materials, articles and consumer products that are used indoors may contain a variety of both well-known chemicals and emerging substances that can be emitted/released to the indoor environment. Chemicals emitted/released from indoor products will be distributed in indoor air and dust that in turn will act as important pathways and sources of chemicals for exposure to outdoor matrices (wastewater, surface water, biota, outdoor air etc) as well as for human exposure.</p> <p>The main objectives of this working group are to:</p> <ul style="list-style-type: none"> - improve and harmonize sampling and analytical methods for indoor dust and air; - organize of inter-comparison studies (ILS)/collaborative trials (CTs); - identify and prioritize chemicals and chemical groups of emerging concern (CECs) in the indoor environment; - collect data of CECs that are currently analysed in indoor air and dust, including data from target, suspect and non-target screening studies, in NORMAN database system; - identify indoor sources of CECs, e.g., building materials, products and articles, and identify important pathways of the chemicals to the outdoor matrices and exposure routes for humans in indoor environments; - link policy and research; - act as an umbrella for other activities concerning CECs in NORMAN. <p>Description of the proposed activity and expected outcomes for 2022:</p> <ul style="list-style-type: none"> - WG6 had one online meeting in 2021 (November 24th). <p>WG6 has in 2021 focused on and will in 2022 continue focusing on:</p> <ul style="list-style-type: none"> - <i>The second collaborative trial on non-target and suspect screening methods for organic substances in European indoor dust.</i> Dust samples have been collected in 15 countries – in total 75 house dust samples and 35 dust samples from public building – and distributed to 26 participating laboratories. In 2021, we have received 10 data sets for GC and 19 data sets for LC. Data analysis have started in autumn 2021 and will be finalized in 2022. A meeting to present and discuss the results will be organized in Spring 2022. Report/scientific publication is planned for fall 2022. - <i>The geographical distribution of organic substances in European indoor dust.</i> An aliquot of the dust samples from the collaborative trial was kept aside when possible. This ended up in about 60 dust samples. The individual dust samples will be analyzed for a selection of prioritized target substances and for non-target screening by volunteer WG6 laboratories. A meeting will be held in January 2022, with labs that have volunteered for analysis, to discuss and decide for chemicals and choice of extraction. The individual dust samples will then be extracted by Umeå University and extracts will be sent out before April 2022. This has been postponed as a consequence of COVID (participating laboratories needed to focus only on the Collaborative trial in 2021). The deadline for data reporting will be after summer 2022 (exact date to be decided in 2022). - <i>The intercomparison study of dust sampling methods.</i> In 2021, two datasets have been finalized – chlorinated paraffins and POPs. Data analysis of the available data will initiate in the end of 2021 and finalized in the beginning of 2022. The WG will try to gather data also on other compounds (plasticizers and flame retardants), probably to be analysed by Univ Antwerp before the summer of 2022. A report including recommendations of sampling strategies for CPs and POPs is expected in the beginning of 2022 and will be expanded with plasticizers and OPFRs in Spring 2022. Scientific publication in fall 2022. - <i>Curation of indoor data sets and meta data for the NDS.</i> This activity has been postponed to 2022 due to lack of time among coordinator and participants. A new coordinator for this activity has been selected and we expect this to be finalized by summer 2022. <p>In addition in 2022, WG6 will initiate expanding the scope of the WG to also cover ambient/outdoor air. Two individual JPAs for 2022 will focus on this activity. The developments</p>

	<p>of new adsorbents for air sampling will enable wide-scope screening/non-target screening as well as toxicological testing of both indoor and outdoor air.</p> <p>Expected outcomes for 2022: The activities in WG6 will follow the action plan for the indoor environment in 2022 with the following expected outcomes in 2022.</p> <ul style="list-style-type: none"> - Uploading of indoor data to NORMAN Indoor environment Database; - Improved master list for the prioritisation process of CECs; - Publication based on “<i>Comparison study of dust sampling methods</i>”; - Publication based on “<i>The second collaborative trial on non-target and suspect screening methods for organic substances in European indoor</i>” - Full data set from “<i>The geographical distribution of organic substances in European indoor dust</i>” (publication in 2022). - Broadening of the scope to outdoor/indoor air. <p>Added value / Link with other NORMAN activities and / or other projects WG6 is linked to the Cross-Working Group Activities Non-target Screening (NTS) and Passive Sampling as well as to WG1 for the prioritisation of CECs in the indoor environment. The new activities under WG3 (source drivers and effect-driver identification) are also linked to the Indoor environments.</p>
Participants	NILU, VU, UA, EI, EHESP, IDAEA-CSIC, INERIS, IVL, Kemi, LCSB, ORU, RECETOX, SU, UoA, UoB, UoC, UoQ, UmU
Proposed in-kind contribution	<p>Personnel costs for the members in the WG.</p> <p>Analytical costs for participating in ongoing activities.</p>
Contribution needed from NORMAN Association¹	<p>Requested: 5000 €</p> <p>To cover cost for:</p> <ul style="list-style-type: none"> - Coordination of the WG activities. - Meetings - Others

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.)