

## Proposals for NORMAN Joint Programme of Activities 2022

<b>Title</b>	<b>Non-target: Alternative analytical platforms and data processing – Implementation</b>
<b>Type of activity</b>	2-day workshop at Danish Environmental Protection Agency with invited lectures, oral presentations and poster sessions. Joint activity between Norman network members and partners in Danish Innovation Fund Grand Solutions Projects GANDALF and VANDALF.
<b>Leader</b>	University of Copenhagen: Associate Professors Giorgio Tomasi and Nikoline J Nielsen, Professor Jan H Christensen. Danish Environmental Protection Agency: Scientific Advisor Helle R. Hansen. Eurofins: Peter B. Mortensen, Manager for Development and Innovation
<b>Topic / activities</b>	<p><b>Background / Justification for the proposed activity:</b> Without regulations, industrial bodies have very little incentive to develop and market non-target tools for screening and monitoring environmental contaminants. This also significantly constrains the transfer (and development) of knowledge between academia and industry: analytical platforms, protocols and workflows for non-target screening as those generated within the Norman network are still mostly designed to work within an academic/research framework with relatively little regard to issues such as scalability and implementation. For example, GC- and LC-MS are mature fingerprinting techniques, but to this day, there is a very limited market for them.</p> <p>The Danish scene currently features a strong collaboration between industry, regulators and academia, which favours implementation, marketing and widespread take-up of non-target technologies. For instance, the department of Plant and Environmental Sciences (PLEN) at the University of Copenhagen initiated the GANDALF and VANDALF Innovation Fund Grand Solutions Projects in collaboration with industry leaders and regulatory bodies such as Eurofins A/S and the Danish EPA for implementation of non-target approaches in soil and wastewater assessment. Through these projects, PLEN has been able to develop a patented solution for soil source apportionment of hydrocarbon contamination (now marketed as ChemFingSoil™ by Eurofins). Within the same framework, UCPH is also currently developing solutions to extend the NTS analytical portfolio and include other techniques such as 2D GC-MS or SFC and to link contaminant fingerprints of wastewater to toxicological endpoints via virtual effect directed analysis. These have been the subject of several activities within NORMAN in recent years and the time seems mature for an update on the state of the art on these new platforms, again with implementation in mind.</p> <p><b>Description of the proposed activity and expected outcomes for 2022 (and beyond):</b> The workshop will take place over two days in week 48 (28<sup>th</sup> Nov. – 2<sup>nd</sup> Dec) in 2022. Each day will be dedicated to a single subject and will include invited, more extensive lectures, shorter oral presentations and poster sessions for junior scientists. The first day will be dedicated to next generation analytical platforms for NTS, e.g., HILIC, SFC, ion mobility, 2D GC-MS and 2D LC-MS, and related data workflows;. The second day will regard examples of implementation in regulation and industry with emphasis on successes and obstacles related to scale and outside-academia operationalization.</p> <p>The questions the workshop will try to address are, for example:</p> <ol style="list-style-type: none"> <li>What can existing products, commercial or otherwise, do today?</li> <li>How close are the Suspect Screening/NTS workflows, for new and old platforms, to being suitable for use outside academia/research projects</li> <li>How can, or do, authorities use results from Suspect Screening/NTS in practice (e.g. in the prioritization of CEC emerging from such studies)?</li> <li>How are Suspect Screening/NTS results reported?</li> <li>How to set up QA-schemes/specifications for Suspect Screening/NTS authorities can refer to in e.g. tenders?</li> </ol> <p><b>Added value / Link with other NORMAN activities and / or other projects</b> The workshop would link to several Norman Workgroups, for starters, the NTS cross-working group, but also WGs 1, 3 and 5. It would be an excellent opportunity to present to the industry the work which was done e.g. on the data bases, and on prioritisation.</p>
<b>Participants</b>	European research, regulation and industry interested in non-target analysis. Norman network members. University students. The maximum number of participants in person is 400. Online streaming will also be available, though physical presence will be encouraged.
<b>Proposed in-kind contribution</b>	Organisation of the workshop: Scientific programme including lectures, oral presentations and poster sessions, invitation of lecturers, logistics related to the workshop e.g. venue and management, finding sponsors, organising one dinner for all participant. Furthermore, we offer a large community of students, young researcher, regulatory and industry partners, as well as analytical instrument company contacts.
<b>Contribution needed from NORMAN Association<sup>1</sup></b>	The economic contributions will be in-kind in helping with the organisation of one or more sessions. No direct contribution is required.

<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.)