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ABSTRACT TEMPLATE

Non-target screening and environmental specimen banking: French perspectives

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In 2016, French regulatory bodies launched a new and ambitious monitoring program so called “prospective monitoring network”, in view of improving and promoting knowledge acquired about the occurrence of contaminants in water environments. Among various actions supported by this program, a specific one is focused on non-target screening strategies. It aims, in particular to demonstrate and highlight the potential of suspect- and non-target screening approaches for retrospective analysis in connection with environmental specimen banking (either physical samples or digital data).

In fact, some mass spectral data banks have been recently built at the level of the research community but outside from conventional ESBs arena and without complete raw data storage, which reduce potential data reprocessing. Among its major advantages: retrospective analysis and elucidation of unknown compounds; alternatives to specimen banking of conventional matrix can be highlighted. As instance, a prototype of a 'Digital Sample Freezing Platform' has been developed by the NORMAN network, to host full scan liquid chromatography-mass spectrometry data, allowing for retrospective analysis of any environmental sample for a wide range of pollutants.

In this context the action of AQUAREF aims to address the following points, essential for improved design of ESBs for NTS applications and to ensure the exploitability of such ESB:

- Appropriate codification to allow an efficient data exchange
- Key metadata that have to be stored and made available
- Properties of samples and data, accessibility, promotion
- Metrological infrastructure: long term storage, QA/QC, SOP, …

The proposal will present French works that are currently performed by AQUAREF consortium (French Reference Laboratory for Water and Aquatic Environment).

SESSION1: **Non-target screening and environmental specimen banking**
SESSION 2: Tracking emerging contaminants in archived samples: technological challenges
TYPE: poster