

***Metrology for monitoring endocrine
disrupting compounds under the Water
Framework Directive_EDC-WFD***

IMPACT

European Metrology Programme for Innovation and Research

Project 18NRM01 EDC-WFD

"Metrology for monitoring endocrine disrupting compounds under the Water Framework Directive"

Deliverable D1

Report on the comparison of sample preparation techniques for estrogens partitioning in whole water and recommendations on the most appropriate methods

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Due date of the deliverable: 30 April 2021 delayed to 31 October 2021 after amendment of the project caused by COVID-19 pandemic

Actual submission date of the deliverable: 31 October 2021

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Deliverable D1

Report on the comparison of sample preparation techniques for estrogens partitioning in whole water and recommendations on the most appropriate methods

Deliverable D2

Report and recommendations to improve the short and long-term stability of selected estrogens in complex water matrix

Deliverable D5

Recommended production methods for aqueous reference materials, which are as close as possible to real water samples, with proven homogeneity and short- and long-term stability

Deliverable D3

SOP/method description for the most promising MS-based measurement method(s) of estrogens in whole water samples compatible with the requirements of the QA/QC Directive

Soon :

- Interlaboratory comparison of chemical MS-based methods and Effect-Based Methods (EBMs bioassays) for estrogens measurements
- SOP/method description for the most promising MS-based measurement method(s) of estrogens in whole water samples compatible with the requirements of the QA/QC Directive

TRAINING WORKSHOP: SOLUTIONS TO TACKLE WFD REQUIREMENTS FOR ESTROGEN DETERMINATION IN WATER

- This **Training/Workshop** aimed:
 - to present the **knowledge gained from the EDC-WFD** project whose objective is to develop reliable and harmonized measurement methods for estrogens, which are key Endocrine Disrupting Chemicals (EDC), to comply with Water Framework Directive requirements
 - to **accelerate the transfer of the most promising measurement methods and methodologies to interested parties**: laboratories, PT providers, researchers
- The training workshop covered **all aspects of measurements** from sampling to final method validation and will address both Mass spectrometry based methods as well as incoming Effect Based Methods (in vitro bioassays)

TRAINING WORKSHOP: SOLUTIONS TO TACKLE WFD REQUIREMENTS FOR ESTROGEN DETERMINATION IN WATER

7th of September
Session 1

09:00 - 09:10: Welcome address

09:10 - 09:50: Presentation of the project and context

09:50 - 10:20: Issues and challenges related to estrogen analysis in relation to the WFD

10:20 - 11:00: Challenges related to sampling

11:00 - 11:15: Break

11:15 - 11:35: Overview of quantification strategy

11:35 - 12:15: Sample preparation

8th of September
Session 2

09:00 - 09:30: Discussion forum / debriefing from day 1

09:30 - 10:30: Mass spectrometry methods - Instrumental developments

10:30 - 10:45: Break

10:45 - 11:45: Achievements of Mass spectrometry based methods _ method performances and measurement reliability

11:45 - 12:00: Concluding remarks

12:00 - 12:15: Next step _ Towards Interlaboratory Comparison

9th of september
Session 3 dedicated to Effect Based Methods (EBM)

09:00 - 09:10 : Welcome address

09:10 - 09:40 : Presentation of the project and context

09:40 - 10:05 : Context and presentation of EBM methods versus MS based methods

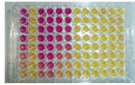
10:05 - 10:40 : EBM protocols

10:40 - 11:15 : EBM data treatments

11:15 - 11:30 : Break

11:30 - 11:45 : Concluding remarks

11:45 - 12:00 : Next step : Towards Interlaboratory Comparison



One already published and others will follow



EURACHEM 2019



ICRAPHE 2019



SETAC 2020



CIM 2021



Goldschmidt 2021



GOLDSCHMIDT[®]
VIRTUAL · 2021
4-9 JULY

EuChemS 2022 Lisbon



IMEKO 2022



Maastricht IMSC22



CIM 2023



PROJECT OUTPUTS

Reference materials:

- Pure material: traceability
- Matrice material: accuracy

Intercomparison laboratory:

- Partners and field laboratories : methods performances
- National Metrology Institutes and designated Institutes: CMCs and metrological dissemination (chemical measurements)

Recommendations for stakeholders : conclusion

Standardisation: Mrs Lardy-Fontan presentation

