

**Closing seminar of the C-StaRRE 4.0 research project
of the region AURA « Auvergne Rhône Alpes » 2021-2023 - PAI 2020**

**C-StaRRE 4.0: From Sewerage network to Water Resource Recovery Facility:
new digital tools for management**

Wednesday 6th December 2023 – LYON - FRANCE

Laboratories involved in the project:
LAGEPP UMR 5007 CNRS, Université de Lyon, UCBL1
ICTEAM, Université Catholique de Louvain (UCL), Belgium
IRI, Universitat Politècnica de Catalunya (UPC), Spain

WorkPackage 1: Management of the Combined Sewer System

WorkPackage 2: New knowledge-based model coupling the biological stage with a clarifier

WorkPackage 3: A decision support system integrating WP1 and WP2 (production of indicators)

- 8h30 Welcome
- 9h Claire Valentin, **LAGEPP, Lyon, France**: Project C-StaRRE 4.0 presentation
- 9h30 WP1: Vicenç Puig, **IRI Barcelona, Spain**: *Model Predictive Control of Urban Drainage Systems considering Uncertainty*
- 10h Coffee break
- 10h30 WP1: Pierre Buffière, **DEEP, Lyon, France**: *Design of an original channel for H2S control in sewers*
- 11h WP2: Claire Valentin, Christian Jallut, **LAGEPP, Lyon, France**: *1-D knowledge-based model of urban sludge continuous flow settling process based on both mass and momentum dynamic balances to support decision making: Comparison with experimental results*
- 11h30 WP2: Sylvie Gillot, **REVERSAAL INRAE, Lyon, France**: *Optimisation of the Pierre-Bénite wastewater treatment plant: plant-wide modelling to anticipate major modifications*
- 12h Déjeuner
- 14h WP3: Marcello Serrao, **LEESU(ENPC)/modelEAU(ULaval)/SIAAP/W-SMART, Paris, France**: *Contribution of AI to models for predicting the behavior of wastewater treatment plants for nitrogen removal by biofiltration*
- 14h30 WP3: Enrico Remigi, **WEST, DHI, Belgium**: *Modelling and decision support tools (digital twins) for integrated management of wastewater collection and treatment systems: lessons learned from real-world applications*
- 15h Coffee break
- 15h30 WP3: Denis Dochain, **UC Louvain, Belgium**: *Management of an integrated network of wastewater treatment plants for improving water quality in a river basin around Paris*
- 16h-16h15 Conclusions and openings

Registration is free but mandatory at: <https://enquetes.univ-lyon1.fr/index.php/379574?lang=fr>.

The registration deadline is 21/11/2023

This seminar is funded by the AURA region and organised by Claire Valentin and Christian Jallut, LAGEPP.

It will take place on the "LyonTech La Doua" Campus at CPE Grand Council room (2nd floor above the entrance hall), 3 Rue Victor Grignard, Villeurbanne.

An e-mail will be sent to all registered participants two weeks in advance with further details.