

***FIRST ANNOUNCEMENT***

**6 – 10 JULY, 2020**

**NARBONNE, FRANCE**

**LEADING EDGE SUMMER COURSE  
THIRD EDITION**

**MANAGEMENT OF  
MICROPOLLUTANTS  
IN THE URBAN WATER CYCLE**

ORGANIZED BY:

**INRAE**

SUPPORTED BY:

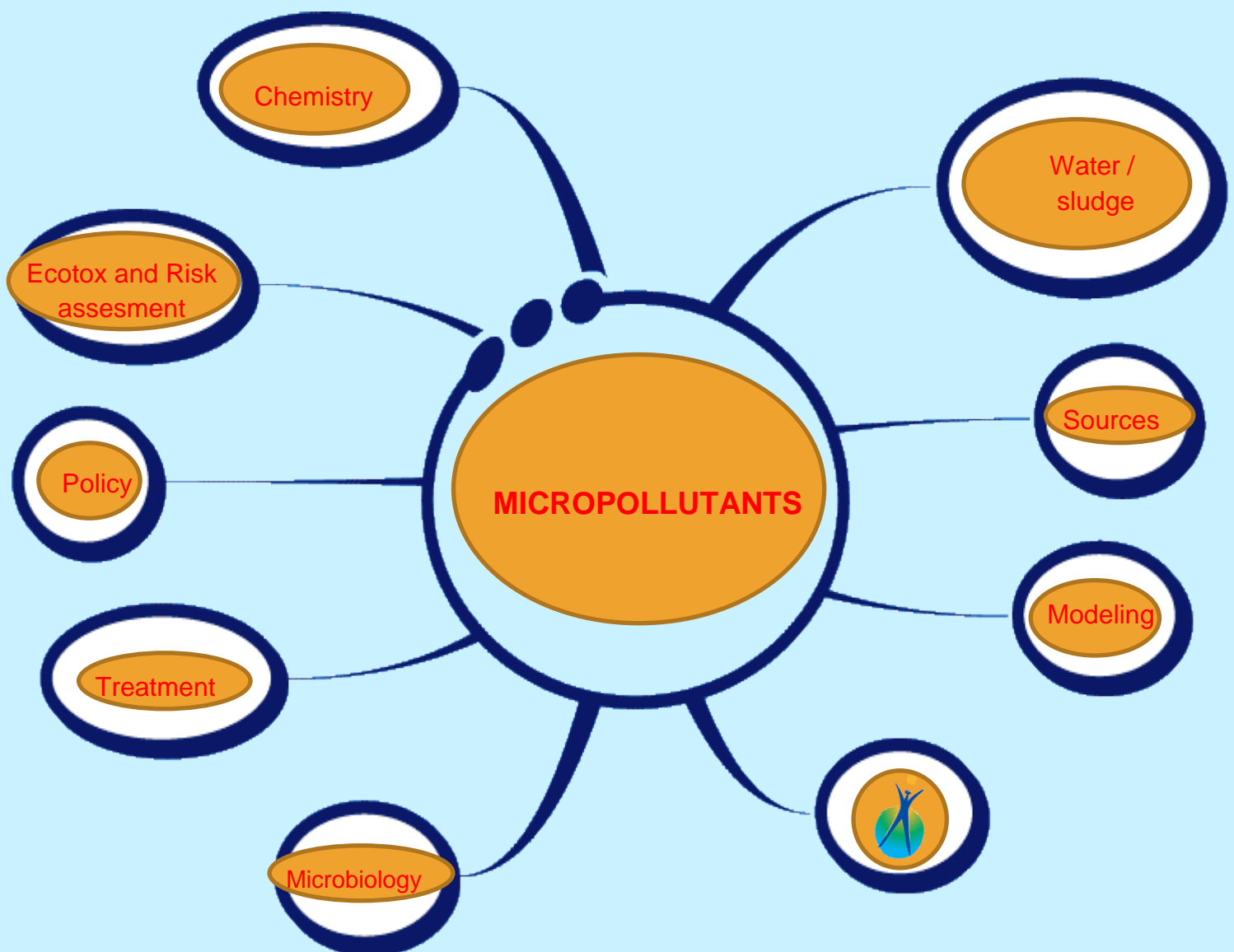


## DESCRIPTION AND GOALS OF THE COURSE



This short, intensive and highly specialized course is focused on priority and emerging micropollutants in wastewater (including sludge) and wastes systems (including biowastes, green wastes, manures...). Aspects related to sources, analysis, occurrence and fate in water and wastes, treatment technologies (process, microbiology) and ecotoxicological impact of micropollutants will be tackled. Students will be able to (i) identify the bottlenecks in the micropollutant management and where future researches are needed and (ii) propose emerging technological solutions knowing advantage/disadvantage and select the best option according to their own context.

This 3<sup>rd</sup> edition will focus on (i) life cycle assessment (LCA) approaches to assess the risks of contaminants release, (ii) predictive modeling of the fate of contaminants and pathways of transformation, (iii) new non-targeted chemical analysis methods and their contribution to risk assessment, (iv) the paradigm shifts in the plant of the future no longer designed to treat but to reuse wastewater, enhance energy and recover nutrients.





## DETAILED ACTIVITIES



**Types of activities** during the course include:

- Lectures given by senior researchers and guests speakers
- Group exercises
- Presentation of the participant's research topics and discussion with senior researchers
- Lab-visit and technical visit to WWTP
- Social event

### Schedule

July 2020	Monday, 6 <sup>th</sup>	Tuesday, 7 <sup>th</sup>	Wednesday, 8 <sup>th</sup>	Thursday, 9 <sup>th</sup>	Friday, 10 <sup>th</sup>
08h30 10h00	Welcome & round table	Fate of chemicals	<i>Modelling</i>	Toxicity	Exercises (group presentation)
	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>	<i>Break</i>
10h30 12h00	Polishing Treatment (water)	Fate of chemicals (exercise)	<i>Life cycle assessment</i>	Exercises (group)	Summary, course evaluation and closure
	lunch break	lunch break	lunch break	lunch break	
13h30 15h00	<i>Studge/soil</i>	<i>Source separation &amp; recovery</i>	Non-target analysis	Technical visit	
	<i>Break</i>	<i>Break</i>	<i>break</i>		
16h00 17h30	Flash presentations by / participants	Flash presentations by / participants	Flash presentations by / participants		
19h00	-	<i>Town visit</i>	<i>Farewell diner</i>	-	



**The course will be in English.** It is oriented to PhD students who wants achieve a higher degree of specialization in this field, but also to other students or professionals specifically interested in these topics and with a limited amount of time.

**Speakers:** Marta CARBALLA (SP), Benedek PLOSZ (UK), Yolaine BESSIÈRE (F), Philippe ROUX (F), Laure WIEST / Emmanuelle.VULLIET (F), Dominique PATUREAU (F), J-Marc CHOUBERT (F).  
1 other speaker is to be confirmed.

**Maximum number of participants:** 20

**Total hours:** 27 (theoretical and practicum).

This will be confirmed by a certificate of participation, but it will not have ECTS equivalents.

**Fees (depending on support of sponsors):** ~300 € including VAT



## APPLICATION FOR REGISTRATION

In the **section "SUBMIT"** of the website <https://workshop.inrae.fr/lesc-muwcl/>, **upload** a file including:

- a cover letter with a statement of interest of up to 1-page
- a CV including a list of publications or conference presentations
- a 1-page description of your research topic

Selection of participants will be carried out by organizers, according to the CV, the letter of interest, the research topic, and gender / country balances.



## SOCIAL PROGRAMME

- Guided tour through the historical part of Narbonne, 7<sup>th</sup> July 2018, 7:00pm-8:00pm
- Farewell dinner, 8<sup>th</sup> July 2018, 7:00pm
- Technical tour, 9<sup>th</sup> July 2018, 3:00pm-5:00pm



## VENUE AND LODGING

- The organizing strongly suggests booking accommodation in the recommended hostel. It is a renewed facility, located in Narbonne center. Budget is about 80 €/night for double room.
- Narbonne can be reached by train or by airport (from Montpellier).



## PRACTICAL INFORMATION

Venue: LBE, avenue des étangs, 11100 Narbonne, France,  
[https://www6.montpellier.inra.fr/narbonne\\_eng/](https://www6.montpellier.inra.fr/narbonne_eng/)

Weather: <http://www.weatheravenue.com/en/europe/fr/languedoc-roussillon/narbonne-weather.html>

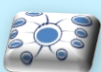
Tourist office: <https://www.narbonne-tourisme.com/>

Public transport: <https://www.citibus.fr/>



## IMPORTANT DATES

- February 1<sup>st</sup>, 2020: Opening application for participation. *Details in section “application for registration”*
- April, 1<sup>st</sup>, 2020: Submission of applications (closure)
- May, 15<sup>th</sup>, 2020: Selection and announcement of participants



## ORGANIZERS CONTACTS

Dominique PATUREAU and Jean-Marc CHOUBERT  
[dominique.patureau \(at\) inrae.fr](mailto:dominique.patureau@inrae.fr) and [jean-marc.choubert \(at\) inrae.fr](mailto:jean-marc.choubert@inrae.fr)