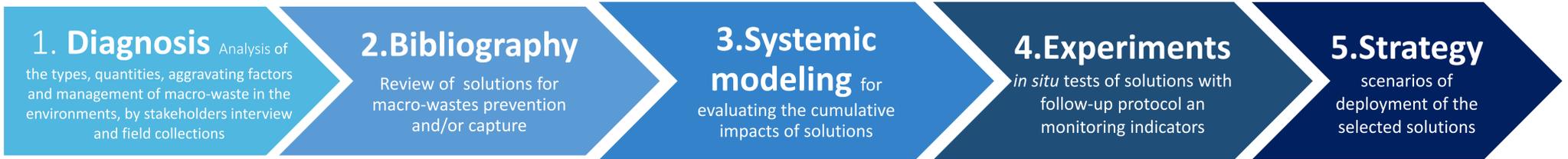
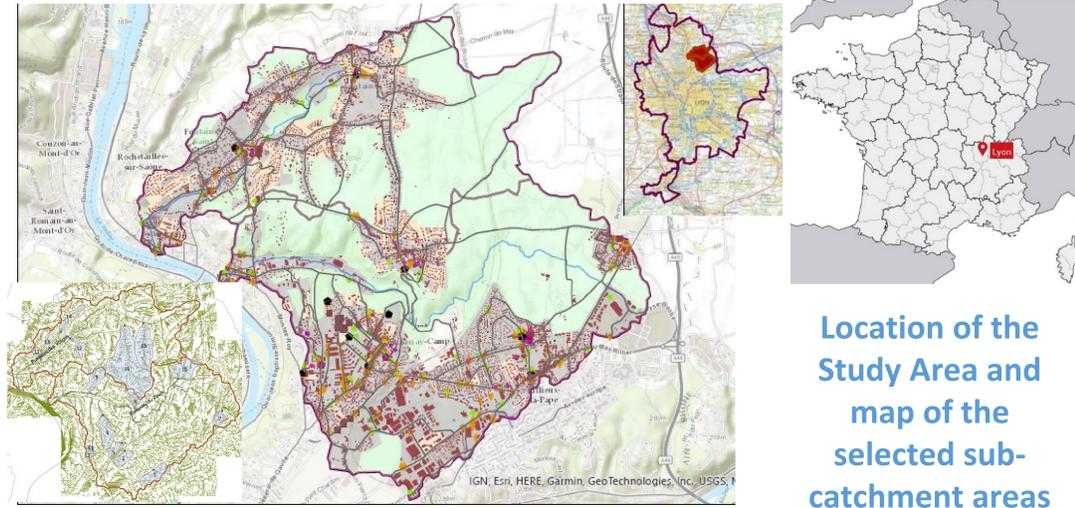


# Building a strategy for preventing and managing macro-wastes in urban hydraulic systems: A pilot study in Grand Lyon metropolitan area

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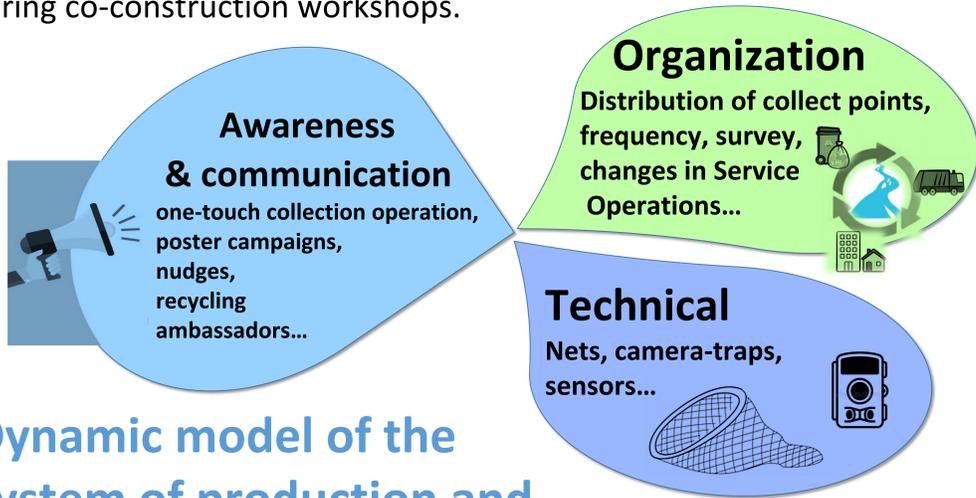
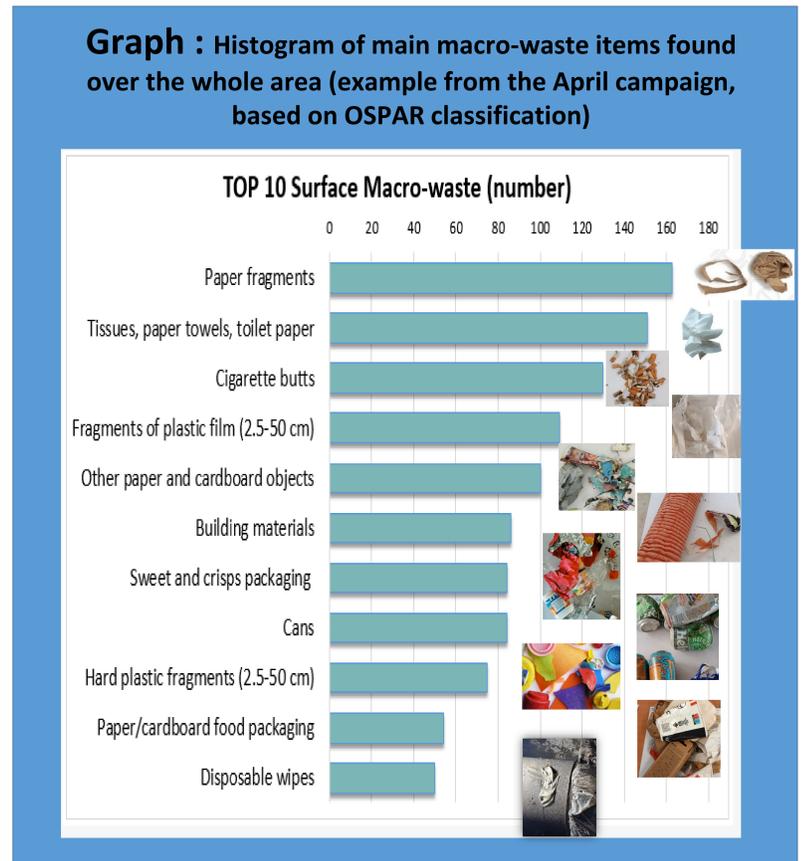
**Aim** Evolutions of regulations and social issues encourage local authorities to implement a strategy of waste prevention and management to limit their impact on the environment. The Lyon metropolitan area is considering measures to combat the macro-waste that reaches wastewater and river systems.

**An original combined approach in 5 steps** is being carried out in the catchments of rivers Vosges and Ravin, 2 tributaries of the Saône located to the north of Lyon within various urban, residential and agricultural contexts, so as to transpose the results to the overall area of Lyon Metropolis.



**Classification of macro-waste** with OSPAR classification compared to a simplified classification by category of material and activity (restoration, works, etc.) in order to trace sources and assess contributions from diverse types of land cover. Characterization of the macro-waste collected during 1 week per month for 4 months over 2 seasons (spring and autumn) supported by the Lyon Metropolis' services and providers.

**Collective choice of preferred solutions** among awareness-raising measures, organizational improvements and retention technical solutions. The solutions also aim to improve knowledge on macro-waste behavior from the surface to the hydrographic networks. The solutions to be implemented and the monitoring indicators designed to assess the effectiveness of the measures implemented were defined on the basis of a literature review and by questioning stakeholders knowledge during co-construction workshops.



## Dynamic model of the system of production and transfers of macro-wastes by water

which at its present conceptual stage, highlights the main relationships between the supply zones (surface and underground) and the watercourses. In the end, the model should help to assess the global efficiency of various scenarios of implementation of the 3 types of selected solutions, for normal conditions or for exceptional rainfall conditions. A participatory workshop with the main players in the system enabled the emergence of an agreed top 5 of macro-waste that will be used to run the model.

