OCAPI research & action program was launched in 2014 in France. It aims at studying the contemporary mutations of urban nutrient flows, and more specifically, the management of urban nutrient excretion.

One century after the generalization of sewer systems, OCAPI is one of the first French academic research programs that opens the debate about management options for human urine and feces in the city, and proposes to explore the potential of urine diversion.

**Scientific partners**
TOWARDS SUSTAINABLE MEGACITIES?

Left: Paris is located in the heart of the river Seine catchment. Right: Urine use in agriculture in Sweden (near Stockholm, 2006)

OCAPI 1: 2014 – 2018

New ways to improve sanitation and agricultural production:
EXPLORING THE POTENTIAL OF URINE DIVERSION

Our goals:

1. Characterize socio-ecological regimes of occidental cities, by focusing on alimentation/excretion systems & their sustainability.
2. Analyse socio-ecological trajectories of French cities since the industrial revolution until recent generalisation of the quasi monopolistic trio « flush toilet, sewer, water treatment plant ».

PRINCIPAL CASE STUDY: GREATER PARIS AREA

1. Provide feedback on different sanitation concepts, that are theorized, being developed or already built abroad (Netherlands, Sweden, Germany, etc.) and compare their energy and material flows.
2. Identify hindering and driving forces of implementation of new sanitation techniques in France and support the development of pilot projects in the Greater Paris Area.
A SYSTEMIC APPROACH OF ECOLOGIC SANITATION

OCAPI 2 : 2018 - 2021

Adapting urine diversion strategies to different urban typologies (with LISBP - INSA Toulouse).

Developing and comparing the agronomic and environmental performances of different value chains for by-products obtained by urine diversion.

Understanding contemporary practices, knowledge & imaginaries about excretion and urine valorization.

IMPLEMENTING URINE DIVERSION in France and beyond

Practice sharing & coordination.

Support of urine diversion stakeholders at a regional, national and international level.
Contact: ocapi@enpc.fr
For more information: www.leesu.fr/ocapi
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Publications
www.leesu.fr/ocapi/bibliotheque/les-productions-docapi/


Smail, A. 2016. Implementation of a complete treatment and valorization chain for urine at the scale of a building. Master thesis, ENPC. (FR)


Technical and financial partners

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