

DESIGN: Développement et Evaluation de Scénarios Urbains Innovants de Gestion Séparative des effluents

Type : Projet ANR - France

Période d'activité : 2017 - 2021

Partenaires :

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- JPCOSTE
- POLYMEM

Informations/Site web : <https://design.cnrs.fr/>

Résumé : The source separation-based sanitation (black water, grey water, urine) could considerably change the current sanitation by decreasing the pressure on freshwater bodies and by increasing the valorization of nutrients, organic matter and even the water. The project DESIGN aims to develop and evaluate by modelling these scenarios of source separation system. It will provide analysis of the nutrient and energy recovery as well as water cycle closure at city scale. This project will combine (1) the study and the development of promising technologies (focus on nitrification - distillation and crystallisation - membrane extraction) and (2) a methodology of evaluation with environmental and economic assessment and finally (3) the sociotechnical study of users and professionals regarding the scenarios. This work should target show-case facilities towards the most promising scenario regarding technical-economic feasibility and social acceptance.

Structure du projet/WPs : cf. site web du projet

Axe(s)/Domaine(s) d'applications(s) du réseau/TRL : Projet technologique alimentant les problématiques de l'axe Filières/Reuse urbaine /Projet à TRL élevé : 4-6