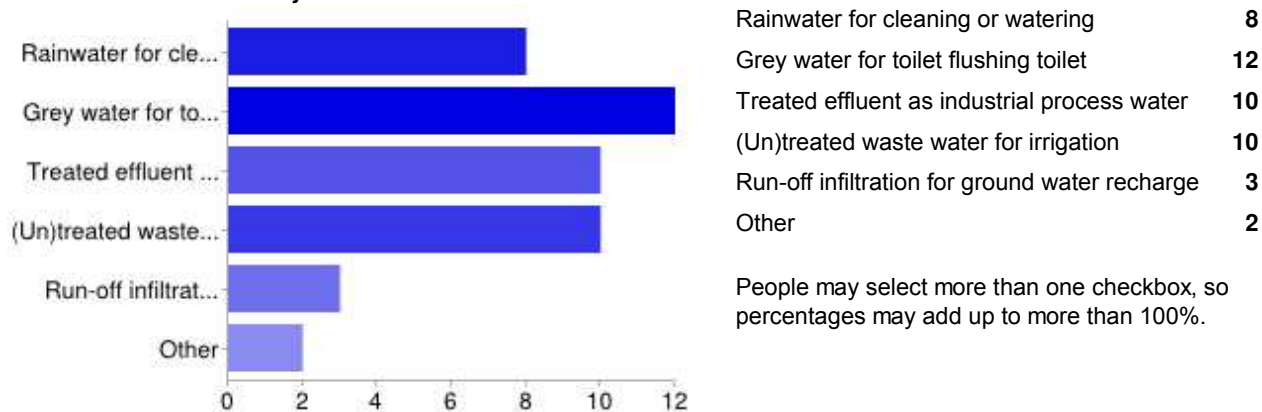


Survey on Urban water reuse

In the framework of French research project "Flux and reflux" (CNRS Pirve) about improving the resilience of metropolitan area of Paris toward climate change, a short survey was held about URBAN WATER REUSE. Raw data shown at 15% replies

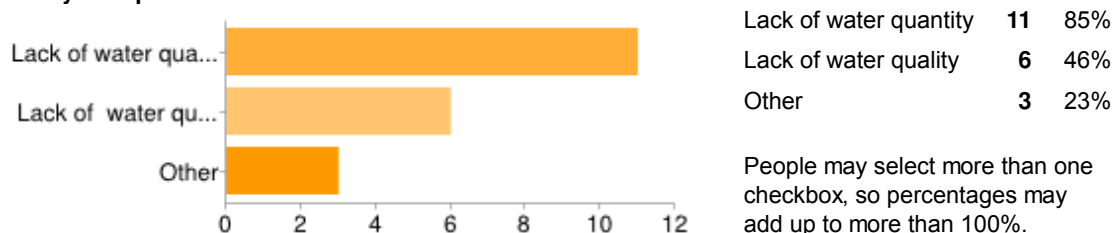
Martin SEIDL,
LEESU ENPC University Paris-Est
<http://leesu.univ-paris-est.fr/pirve/>

1. What does include for your the term "water reuse" ? It includes the use of



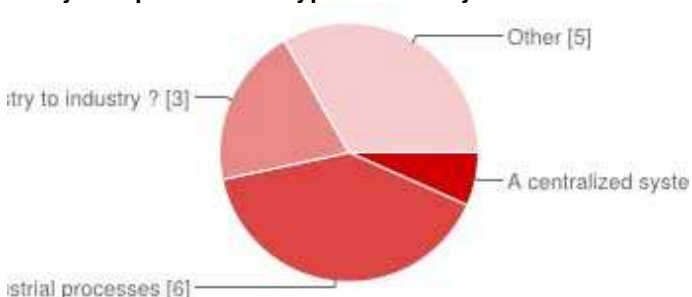
People may select more than one checkbox, so percentages may add up to more than 100%.

2. In your opinion which elements contribute to water reuse ?



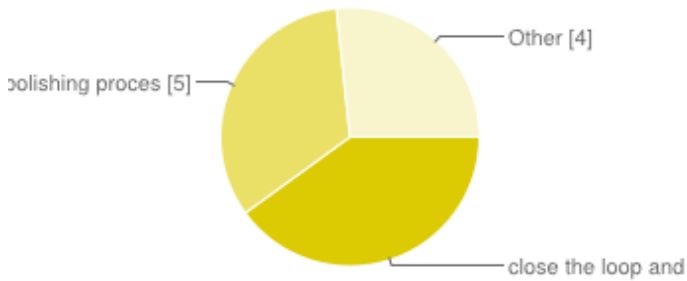
People may select more than one checkbox, so percentages may add up to more than 100%.

3. In your opinion which type of reuse system would be the most sustainable ?



A centralized system, including a separate network
A decentralized system needing only on site treatment
Point to point systems like domestic effluents for a
Other

5. In some cities in the world exist dual supply system for distribution of drinking water AND of raw surface water and watering. - In your opinion what would be "better" to do : try close the loop and recycle directly, using the example for distribution of treated waste water, or using to use the receiving ecosystem as buffer and polish it "reuse"?

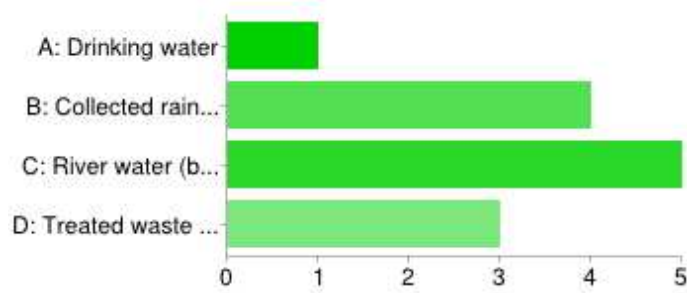


close the loop and recycle directly
 use the receiving ecosystem as buffer and polishin
 Other

___ Please, comment shortly your choice

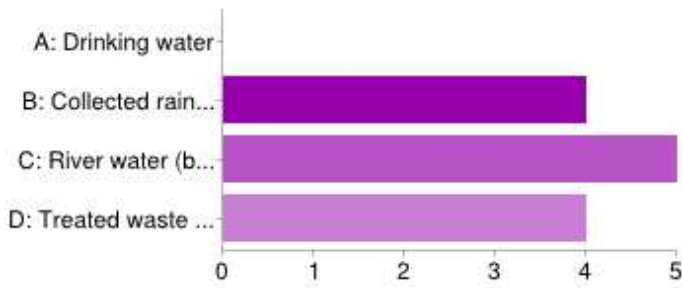
comment Les deux solutions sont permutables, selon le contexte. Cela dépend de l'échelle à laquelle on travaille. A l'échelle de l'habitation, du groupe d'habitation voire du quartier, il est possible d'envisager

7. Please give for the following water uses, a for you, minimum acceptable water quality - Street and pavement cleaning



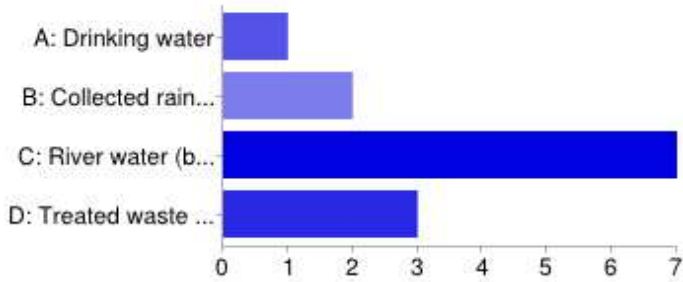
A: Drinking water	1	7%
B: Collected rain water	4	27%
C: River water (bathing quality)	5	33%
D: Treated waste water (WHO level),	3	20%

7. Please give for the following water uses, a for you, minimum acceptable water quality - Watering / irrigation of parks



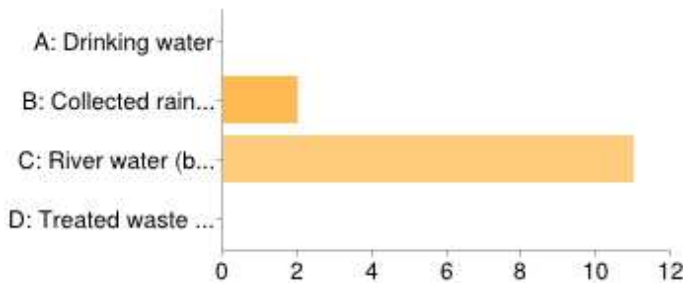
A: Drinking water	0	0%
B: Collected rain water	4	27%
C: River water (bathing quality)	5	33%
D: Treated waste water (WHO level),	4	27%

7. Please give for the following water uses, a for you, minimum acceptable water quality - Maintenance of urban waters for decoration (water animals and plants)



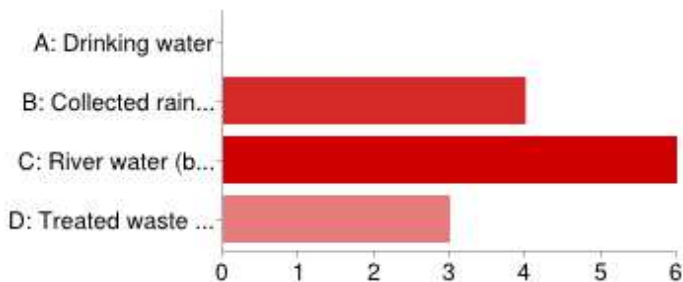
A: Drinking water	1	7%
B: Collected rain water	2	13%
C: River water (bathing quality)	7	47%
D: Treated waste water (WHO level),	3	20%

7. Please give for the following water uses, a for you, minimum acceptable water quality - Maintenance of urban waters for recreation (boating and swimming)



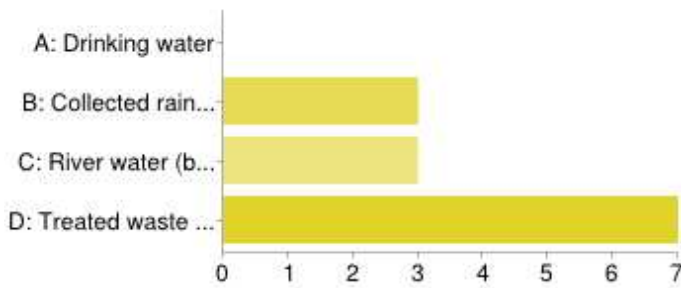
A: Drinking water	0	0%
B: Collected rain water	2	13%
C: River water (bathing quality)	11	73%
D: Treated waste water (WHO level),	0	0%

7. Please give for the following water uses, a for you, minimum acceptable water quality - Fire protection



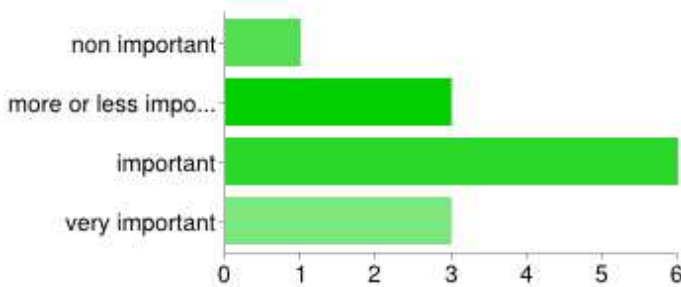
A: Drinking water	0	0%
B: Collected rain water	4	27%
C: River water (bathing quality)	6	40%
D: Treated waste water (WHO level),	3	20%

7. Please give for the following water uses, a for you, minimum acceptable water quality - Construction of roads and concrete production



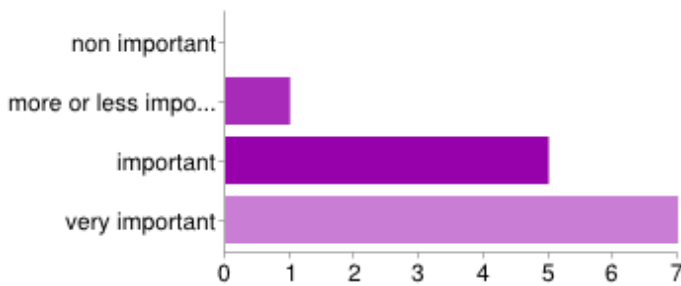
A: Drinking water	0	0%
B: Collected rain water	3	20%
C: River water (bathing quality)	3	20%
D: Treated waste water (WHO level)	7	47%

8. Which aspects should be evaluated in the case of CLEANING OF CITY ROADS and WATERING of URBAN PARKS with recycled water? - Perception / acceptance by inhabitants



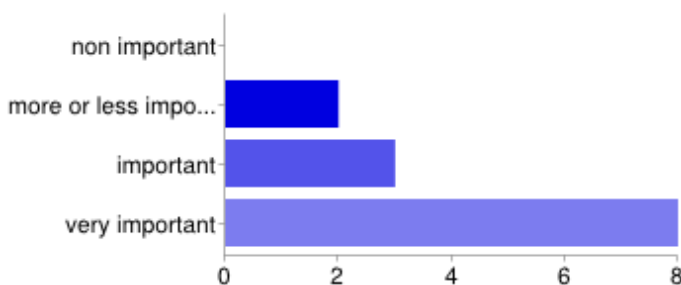
non important	1	7%
more or less important	3	20%
important	6	40%
very important	3	20%

8. Which aspects should be evaluated in the case of CLEANING OF CITY ROADS and WATERING of URBAN PARKS with recycled water? - Health risks for the inhabitants



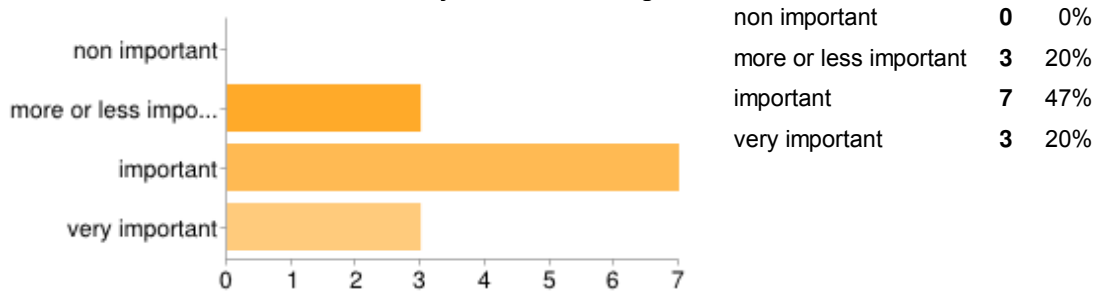
non important	0	0%
more or less important	1	7%
important	5	33%
very important	7	47%

8. Which aspects should be evaluated in the case of CLEANING OF CITY ROADS and WATERING of URBAN PARKS with recycled water? - Health risks for technicians handling recycled water

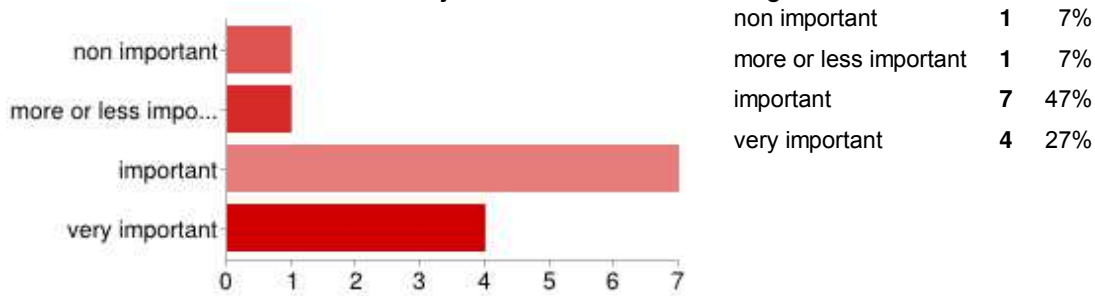


non important	0	0%
more or less important	2	13%
important	3	20%
very important	8	53%

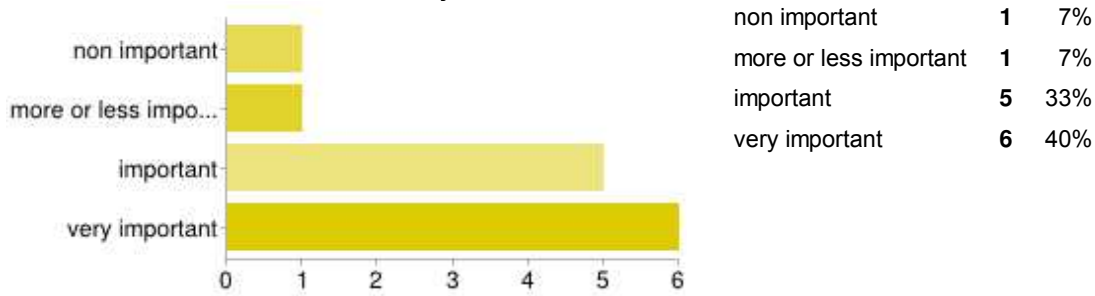
8. Which aspects should be evaluated in the case of CLEANING OF CITY ROADS and WATERING of URBAN PARKS with recycled water? - Regulations



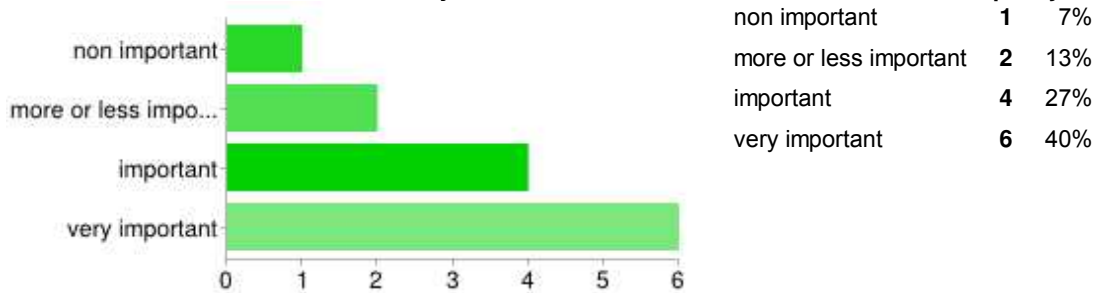
8. Which aspects should be evaluated in the case of CLEANING OF CITY ROADS and WATERING of URBAN PARKS with recycled water? - Political willingness



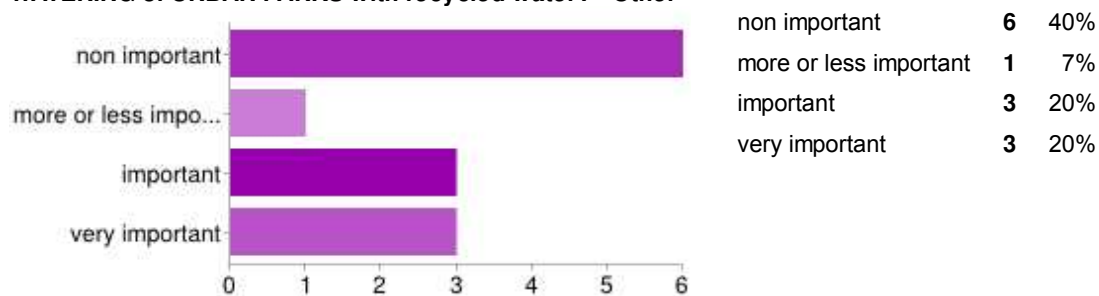
8. Which aspects should be evaluated in the case of CLEANING OF CITY ROADS and WATERING of URBAN PARKS with recycled water? - Environmental benefits and costs



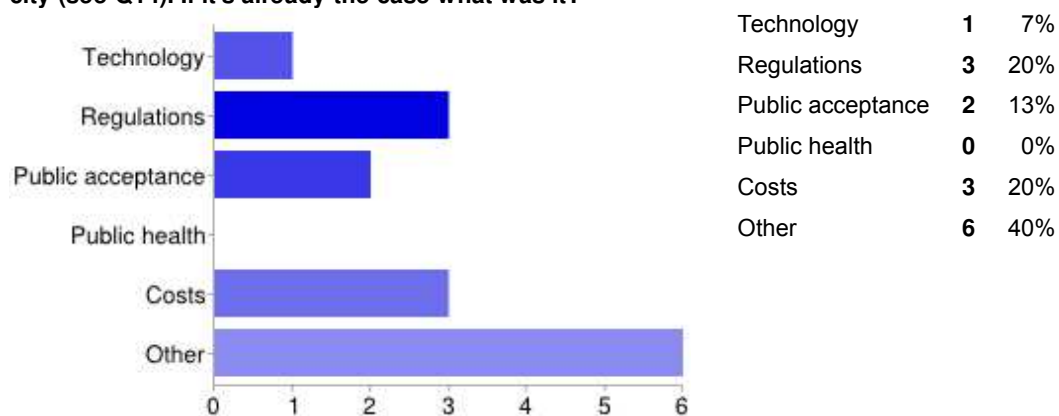
8. Which aspects should be evaluated in the case of CLEANING OF CITY ROADS and WATERING of URBAN PARKS with recycled water? - Relation between use and water quality



8. Which aspects should be evaluated in the case of CLEANING OF CITY ROADS and WATERING of URBAN PARKS with recycled water? - Other



10. What do you think will be the major problem in implementing urban water reuse in your city (see Q14). If it's already the case what was it?



11. Can you mention an interesting CASE of (urban) water reuse ?

reuse Le mieux c'est de changer les habitudes de consommation : minimiser la consommation d'eau pour minimiser la production d'eau usée : cabinets à compost, modification des process industriels, recours à des filières biologiques plus intégrée dans les cycles naturels... Ensuite, traiter sur site pour éviter le recours aux tuyaux... None Dead rivers become water clean with fish... Reuse of industrial effluents of FIAT Automóveis - Betim - Brasil - with 99% of reuse. Greywater reuse: Nordhavnsgården; <http://www2.mst.dk/udgiv/publikationer/2004/87-7614-151-9/pdf/87-7614-152-7.pdf> and Vestbad ...