

The potential contribution of urine source separation to the SDG agenda – A review of the progress so far and future development options

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Supplementary Information

Table S1 Planned demonstration projects on urine separation in Europe, implementing the Save! toilet together with a technology for the production of urine-based fertilizer
(<https://vuna.ch/aurin/>)

Project	City	Typology	# of toilets	Ready in	Ref.
Eawag, Flux	Dübendorf, CH	Offices	25	2021	1,2
La Bistoquette	Geneva CH	Mixed	100	2022	1,3
blueFACTORY	Freiburg CH	Offices, restaurant	40	2022	1,4
Votre Cercle de Vie	Château d'Oex, CH	Mixed	50	2022	1,5
Saint-Vincent de Paul	Paris, FR	Neighborhood	800	2023	1,6
ESA Headquarters	Paris, FR	Offices, convention center	80	2024	1,7
Greenmark le Bourget	Paris, FR	Mixed	150	2024	1,8
Anonymous	Vienna, AT	Offices, head quarter	?	?	1

1. Personal communication: Bastian Etter, Vuna GMBH (bastian.etter@vuna.ch)
2. <https://www.eawag.ch/en/aboutus/sustainability/sustainable-building/flux/>
3. www.bistoquette.ch
4. www.bluefactory.ch
5. www.votre-cercldevie.ch
6. www.paris-metropole-amenagement.fr/fr/saint-vincent-de-paul-paris-14e
7. www.esa.int/Space_in_Member_States/France/Renovation_du_siege_de_l_ESA_a_Paris
8. www.inventonslametropolegrandparis.fr/sites/le-bourget-site-abbe-niort

Table 2 Toilet types in development for different local markets as enabling technology (EOOS NEXT and BMGF). For illustrations of a few of these toilets, see Figure 2. State December 1, 2020.

Pedestals (sitting toilets), all low flush				
Product →	Eazi split (insert)	Envirosan	EnviroLoo	Arumloo
Flush:	Low flush	Low flush	Low flush	Low flush
Location:	Durban, SA	Durban, SA	Durban, SA	Cape Town, SA
Partner:	Envirosan	Envirosan	EnviroLoo	Arumloo
# produced:	200+ ordered	1 prototype	1 prototype	1 prototype
Material:	Injection-molded plastics	Planned in ceramics	Planned in ceramics	Roto-molded plastics
Status quo	Serial production (from April 2021)	Field tested	Field tested	Demonstrator
Producer	Envirosan	Acquisition phase	Acquisition phase	Acquisition phase
Squat pans (squatting toilets)				
Product →	Indian squat pan	Open design	Sanergy	Better Design
Flush:	Pour flush	Dry toilet	Dry toilet	Low flush toilet
Location:	Coimbatore, IN	Chitwan, NP	Nairobi, KE	Bangalore, IN
Partner:	Laufen	Helvetas, CH	Sanergy	The Better Design Foundation
# produced:	20	20 planned	3 prototypes	1
Material:	Ceramics	On-site concrete cast	Glass-fiber reinforced plastic	Not yet determined
Status quo	Field tested	Field test in preparation	Field test Oct. 2020	Prototype in progress
Producer	Ongoing search	Individual local craftsmen	Acquisition phase	Acquisition phase