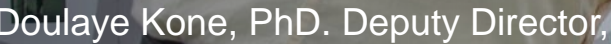




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THE OPPORTUNITY FOR DEVELOPING A SUSTAINABLE SANITATION SERVICE INDUSTRY



Doulaye Kone, PhD. Deputy Director,



**African Water Association High Level Panel Discussion « Improving the performance of the Water, Sanitation and Hygiene sector in Africa »
La-Palm Royal Beach Hotel – Accra, July 17, 2017**

EVERY PERSON
DESERVES THE
CHANCE TO LIVE
A HEALTHY,
PRODUCTIVE LIFE

2

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CURIOUS



JMP 2017

Some 3 in 10 people worldwide, or **2.1 billion**, lack access to safe, readily available water at home,

and 6 in 10, or **4.4 billion**, lack safely managed sanitation, (WHO) and UNICEF 2017)



**0.8 MILLION
CHILDREN DIE OF
DIARRHEA
EVERY YEAR**

TODAY'S TOILET SOLUTIONS

In the "DEVELOPED" world



CENTRALISED INFRASTRUCTURE – A BIG CHALLENGE EVEN FOR RICH COUNTRIES

- Life-span of pipes: 50 – 80 years
- Required annual renewal rate: 1.3 – 2 %

| <u>City</u> | <u>Renewal rate 2011</u> |
|-------------|--------------------------|
| Singapore | 5.0% |
| Amsterdam | 1.7% |
| Zurich | 1.7% |
| Vienna | 1.2% |
| Munich | 0.8% |
| Milan | 0.7% |
| London | 0.1% |

TODAY'S TOILET SOLUTIONS

In the **DEVELOPING** world



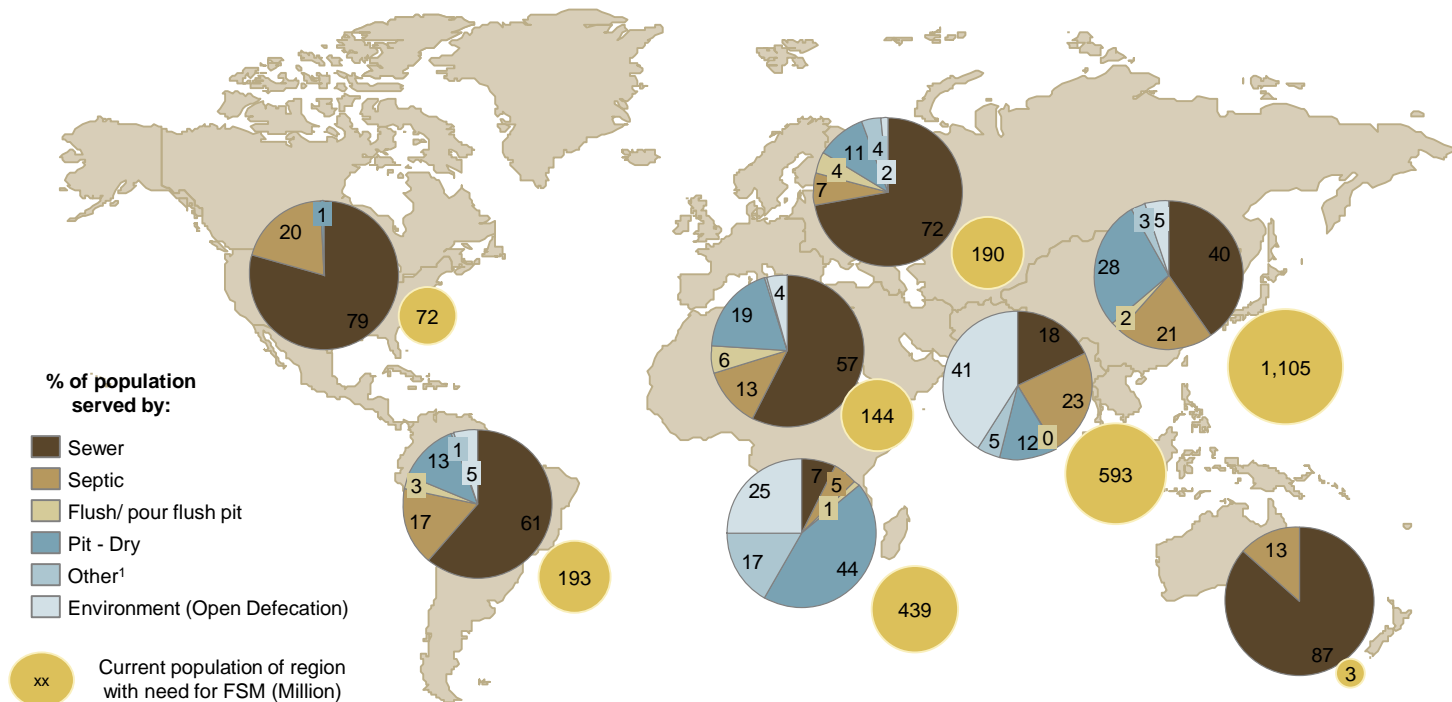
In the DEVELOPING world – Fecal Sludge Management is a neglected utility service and yet an untapped growing business opportunity



FSM is part of the solution even in large cities (i.e. Map of Dakar sanitation network, Source ONAS)



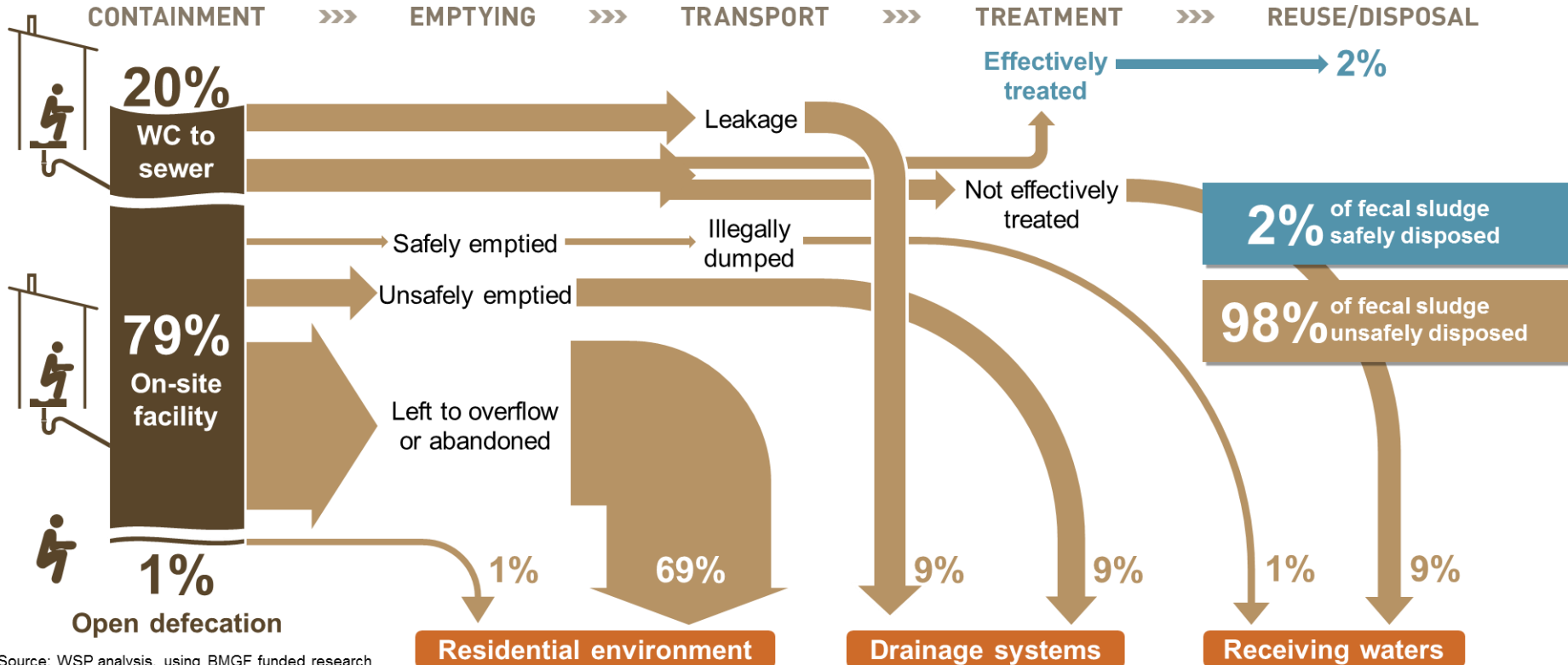
~2.7 BILLION PEOPLE WORLDWIDE NEED FECAL SLUDGE MANAGEMENT TODAY AND AN ADDITIONAL 2.1 BILLION IS DO NOT HAVE TOILET



1. Open pits, pits without slabs and composting toilets included in "Other" as these do not need FSM (open pits/ pits without slabs covered up when full)
 Source: UN JMP sanitation data, BCG analysis

EXAMPLE OF POOR FECAL SLUDGE MANAGEMENT (FSM):

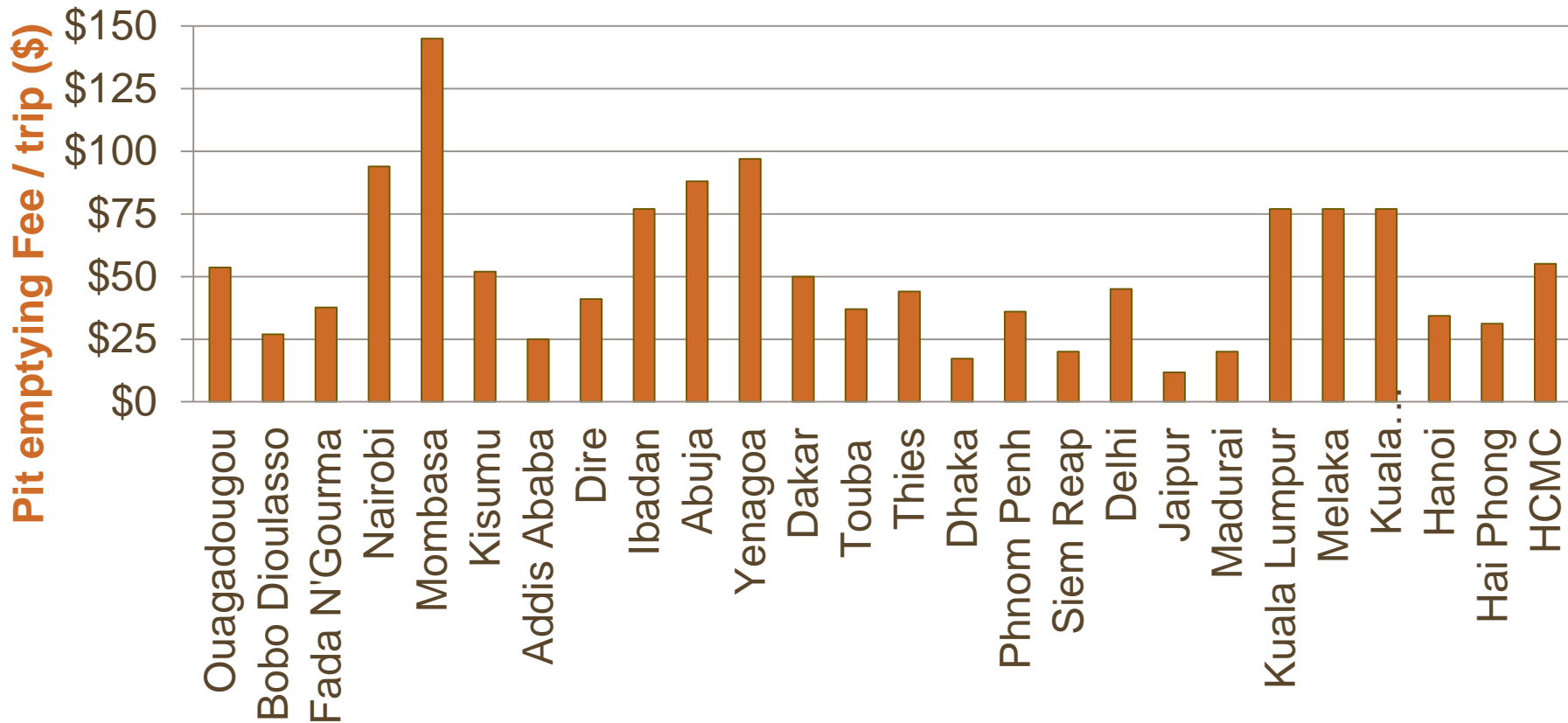
Institutional open defecation - Sludge direct to the environment: no service chain



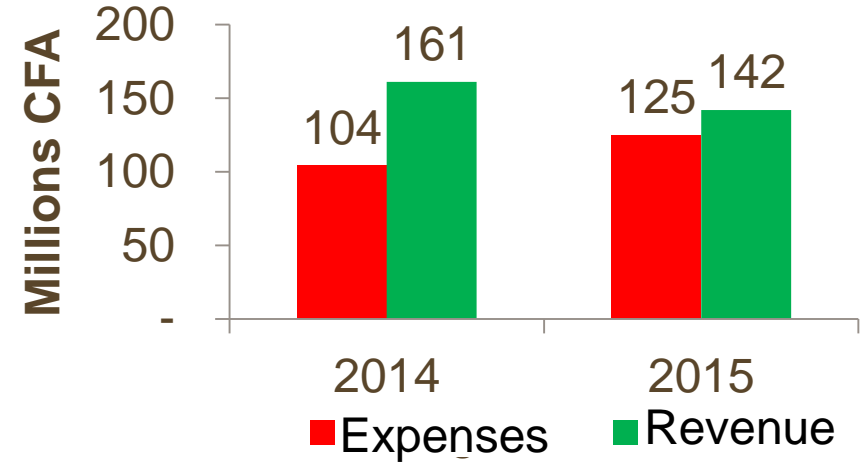
Source: WSP analysis, using BMGF funded research

PIT EMPTYING FEE PAID BY HOUSEHOLDS

(REF. BMGF LANDSCAPE STUDY FSM BUSINESS IN 30 CITIES IN AFRICA & ASIA)



MEANS OF IMPLEMENTATION FOR SDG 6 AND NEED FOR SERVICE STANDARD: MAKE SANITATION A PROFITABLE UTILITY SERVICE



- PPP contracts for a private utility service
- Innovative local financing (with commercial banks)
- Innovative technology adoption and business creating jobs

Possible Action utilities/cities can take today: Implement ISO 24521 addressing FSM issues

INTERNATIONAL
STANDARD

ISO
24521

First edition
2016-09-01



Activities relating to drinking water and wastewater services — Guidelines for the management of basic on-site domestic wastewater services

Activités relatives aux services de l'eau potable et des eaux usées — Lignes directrices pour la gestion sur site des services d'eaux usées domestiques de base



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Reference number
ISO 24521:2016(E)

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Possible Action utilities/cities can take today: join RASOP; acces FSM toolbox

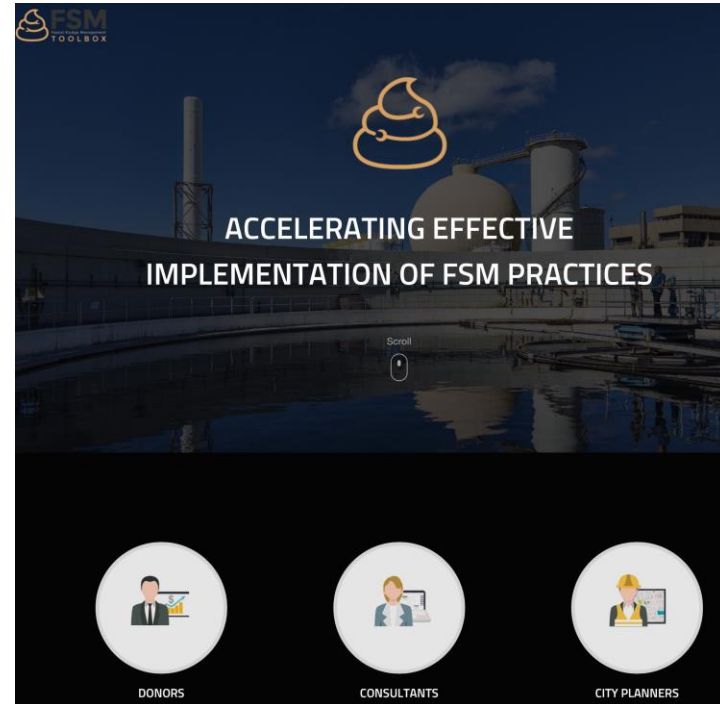
News

Sanitation : RASOP-Africa takes stock of the first year of operation



The Reinforcing Capacity of African Sanitation and Non-sewer and Fecal Sludge Management System Operators Program (RASOP-Africa) assessed in Yaoundé, from March 13 to 15, 2017, its activities carried out in the first year. This was on the occasion of a workshop organized by the African Water Association, the parent organization of the Rasop program.

<http://www.susana.org/en/resources/projects/details/304>



<http://www.fsmttoolbox.com/>

Birthing a sanitation industry – reinvent the toilet

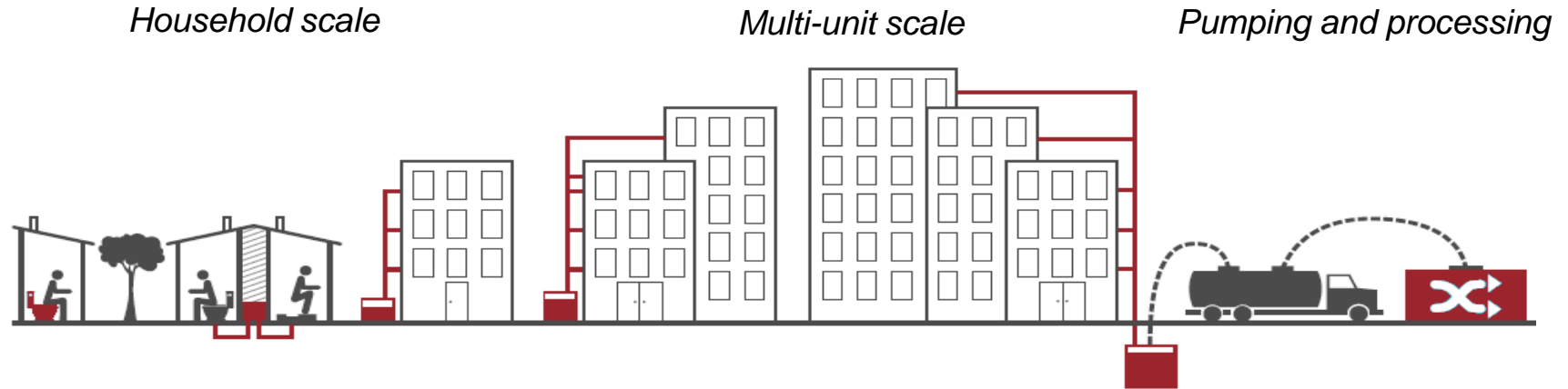
Fix an important market failure by delivering services and product that meet customers needs and aspiration, compatible with 21st century technologies



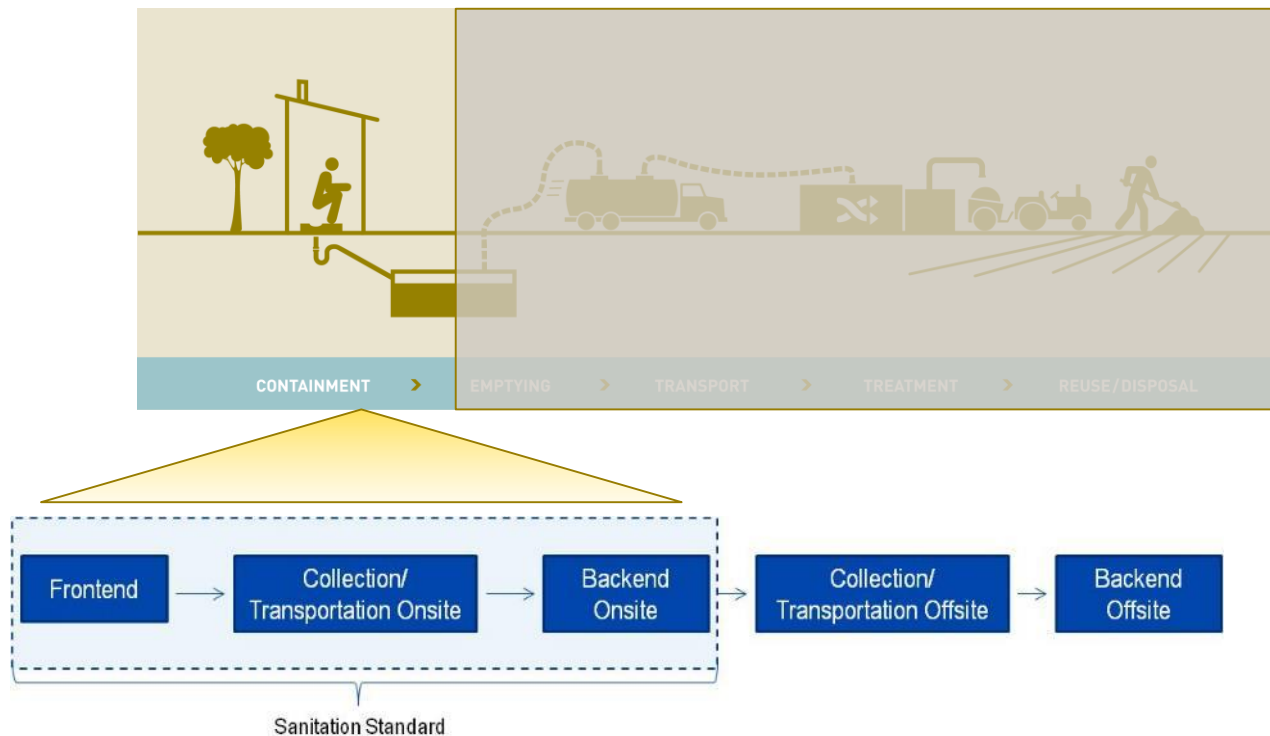
THE REINVENTED TOILETS ARE NON-SEWERED SANITATION SYSTEMS FOR A RANGE OF USE CASES

From household systems that can be used inside the home, to external units that process waste from multiple dwellings or apartment units, the RT portfolio includes technologies for a range of use cases, with varying sizes and capacities.

RT SUPPORT A RANGE OF USE CASES, SIZES, CAPACITIES



MEANS OF IMPLEMENTATION FOR SDG 6: STANDARDS DEVELOPMENT (ISO/PC305)



INTERNATIONAL WORKSHOP AGREEMENT

IWA 24

First edition
2016-09-01

Non-sewered sanitation systems — General safety and performance requirements for design and testing

*Systèmes d'assainissement non collectifs — Exigences de performance
et de sécurité générale pour la conception et les essais*



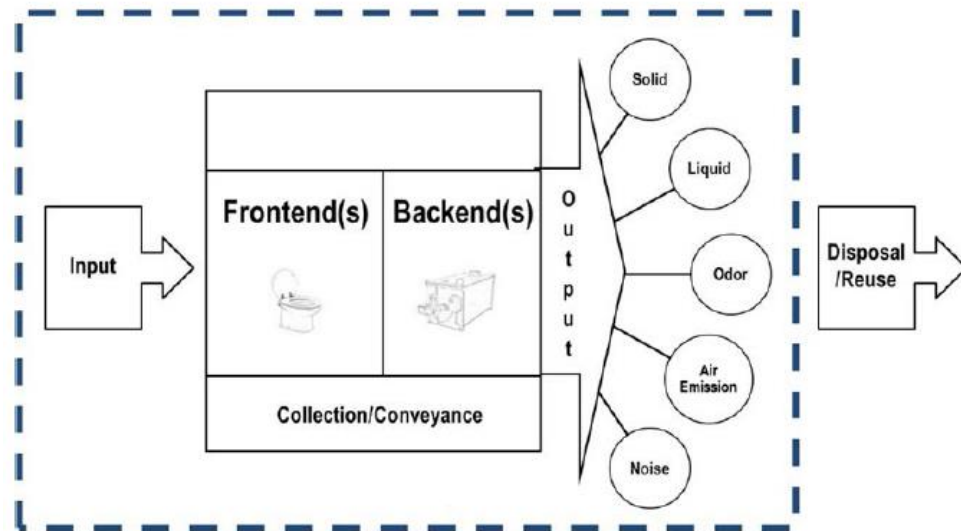
Reference number
IWA 24:2016(E)

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ISO Standard IWA 24:2016(E) downloaded 2016-09-12
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**Possible Action utilities can take starting 2018:
Implement ISO 30500 to promote non-sewered
sanitation systems that kill pathogens!**

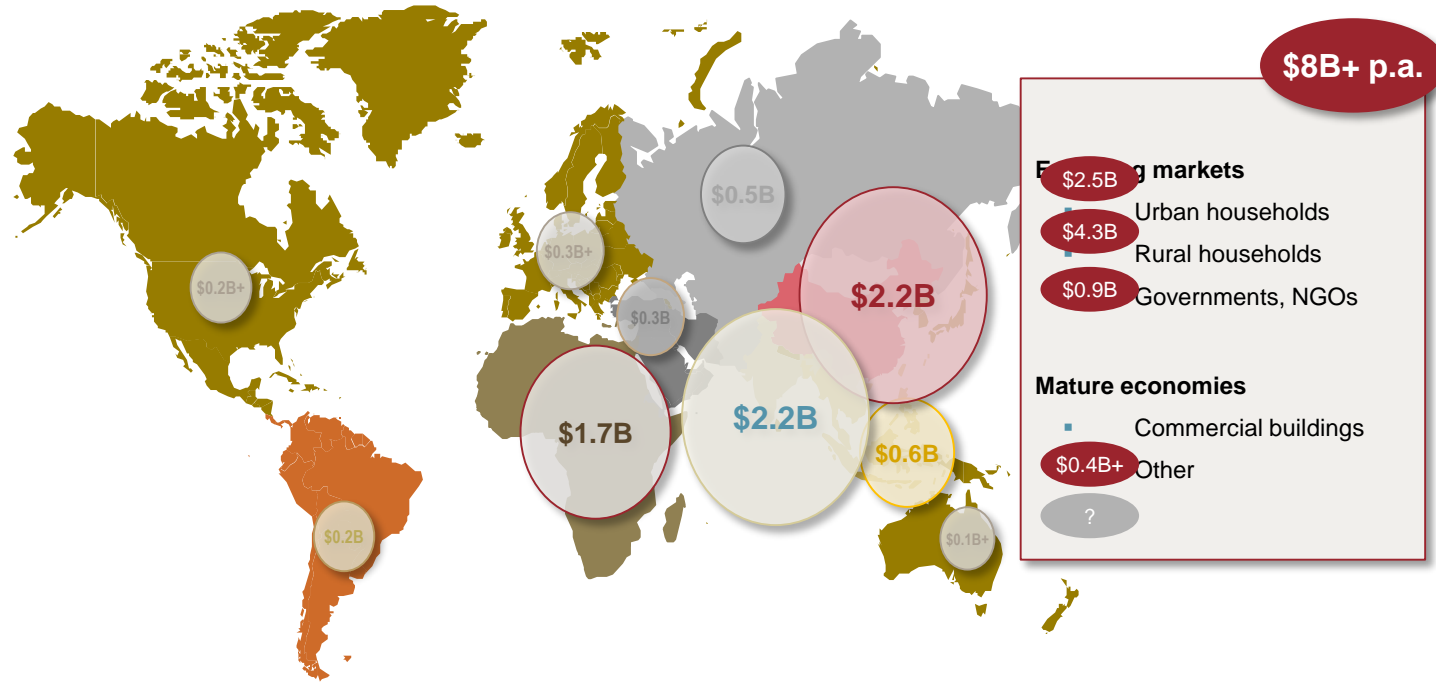
SCOPE OF THE STANDARD



TOILETS THAT KILL PATHOGENS, TURN FECES/URINE INTO COMMODITY, OPERATES WITHOUT SEWER, WATER CONNECTION (FULL SPECS UNDER ISO/IWA 24)



A POTENTIAL \$8B+ GLOBAL ANNUAL OPPORTUNITY TO HELP MEET SANITATION NEEDS...



Thank you

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