

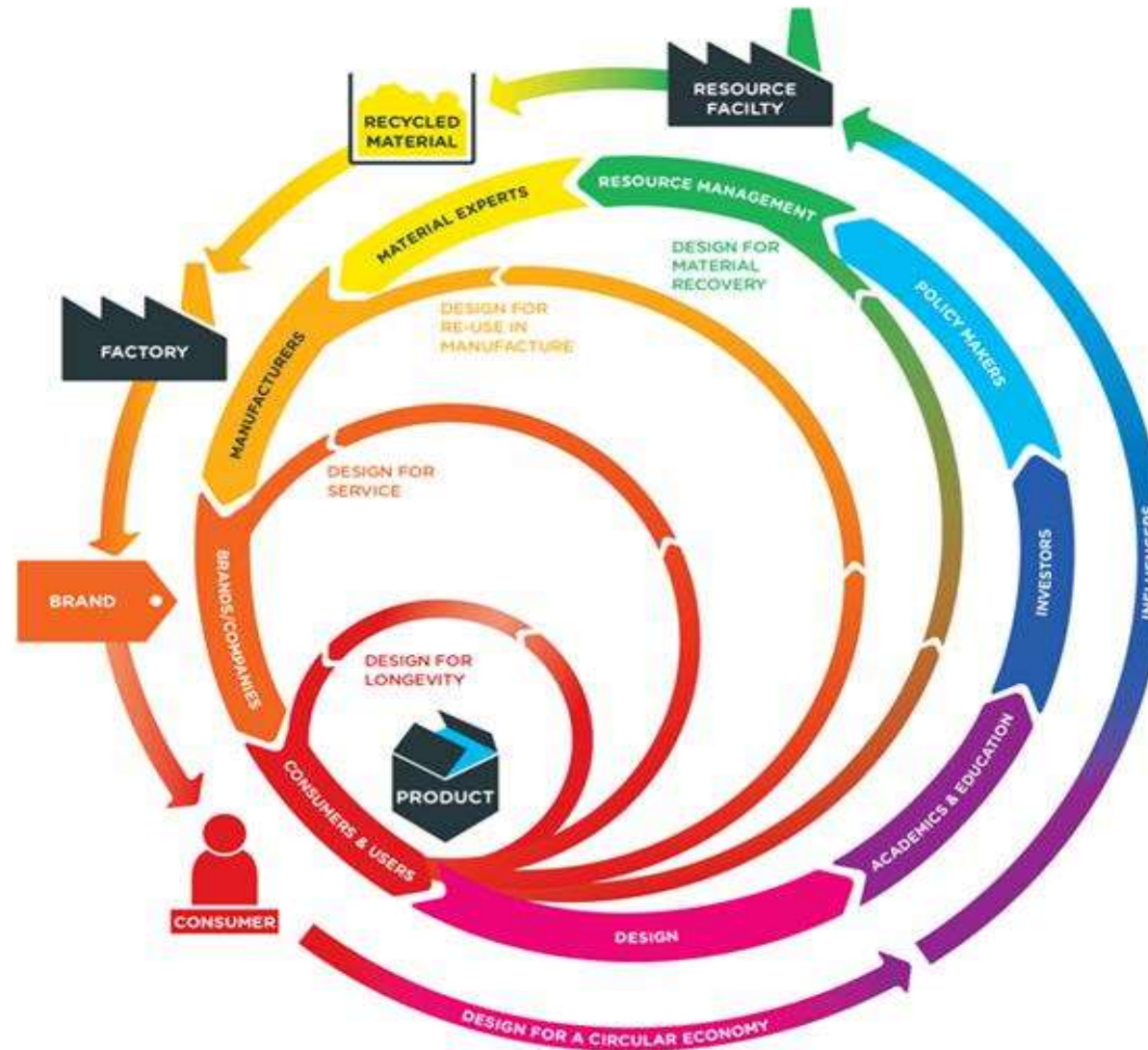
SaNiTi

BUILDING A SANITATION ECONOMY IN SOUTH AFRICA

Some lessons in ShIT (sanitation high in transfromation)..... Poop It matters

- It does not go anywhere.....
- It is full of resources.....oils, fats, nutrients – wedding rings etc
- Get a sanitation solution designed by a sanitation specialist
- Reactor size and design is important
- Aspirational solutions drive behaviour change
- Each households should have its own toilet – even in informal settlements
- Closing the loop upfront has many benefits
- Moisture is the achiles heel....

New Sanitation Model CAN STIMULATE A CIRCULAR ECONOMY





INPUT

WATER
FAECES
URINE

RE-USED

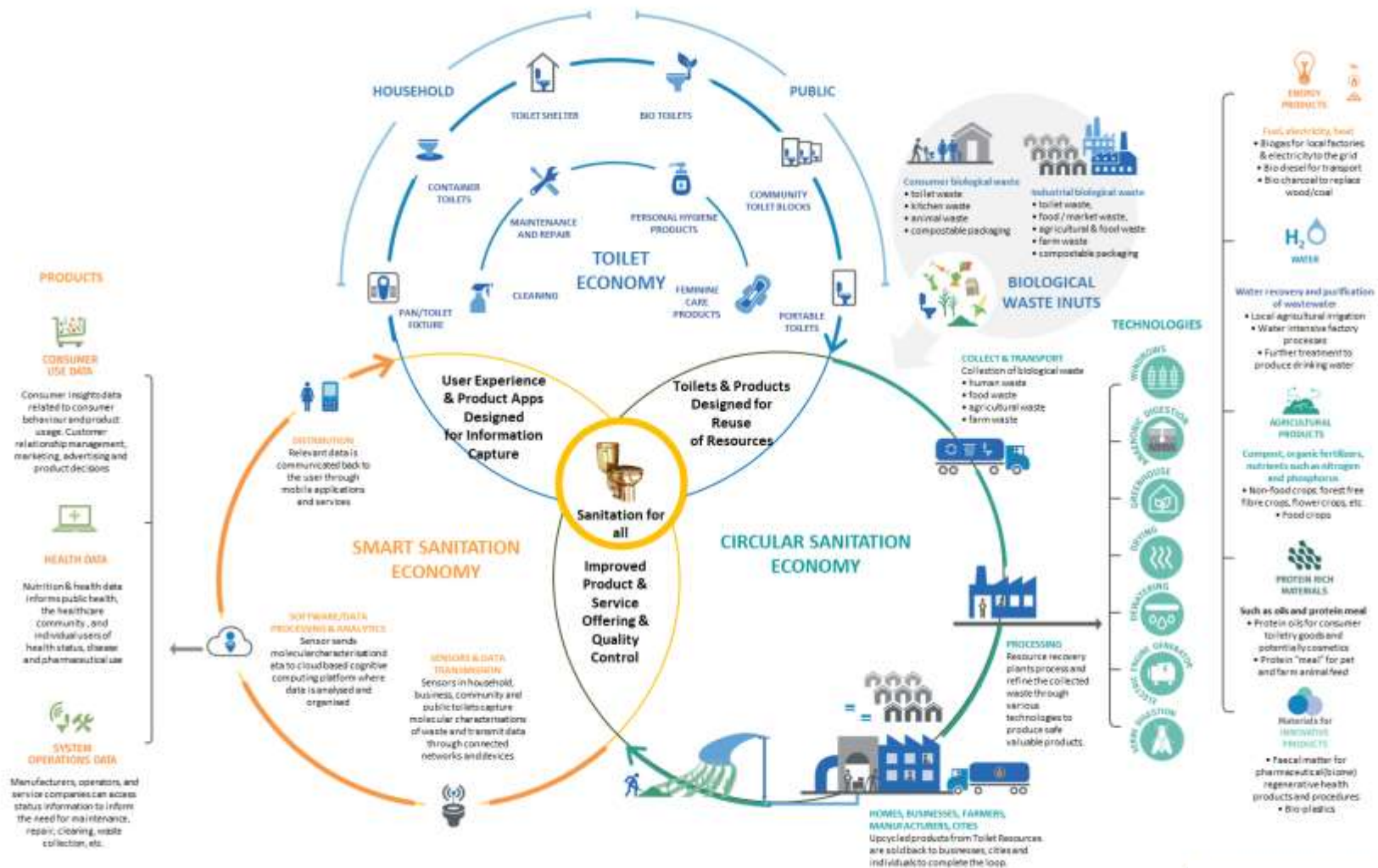
WATER

**NEW
TOILET
PROCESS**

OUTPUT

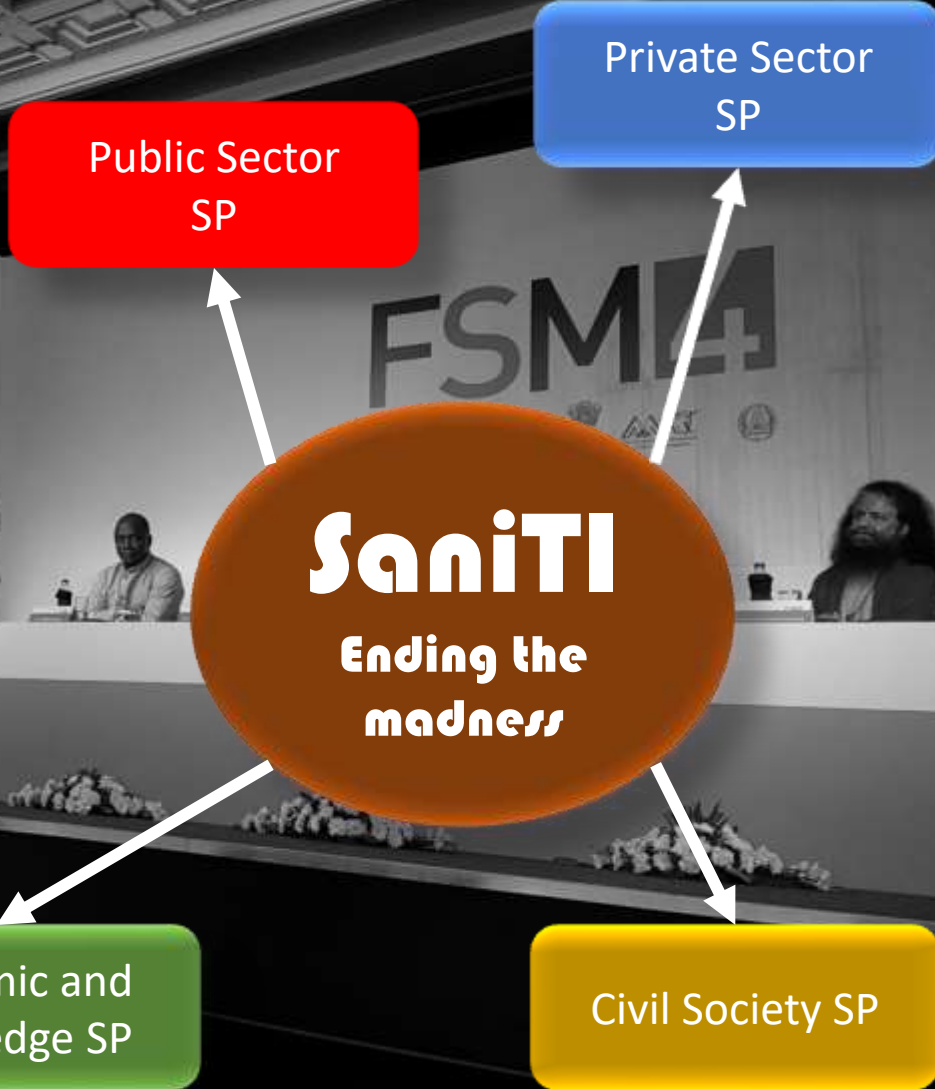
VALUE PRODUCTS:
BIOCHAR
FUELS
FERTILISERS

THE TOILET ECONOMY



Source: Toilet Board Coalition

**Sanitation
Transformation
Initiative**



Non-sewered Sanitation



Municipal Managed

Public driven model



Municipal Enabled

Industry driven model

- SFD
- SSDs
- New institutional and social model
- Target behaviour change
- Valorisation and beneficiation
- New social entrepreneurial pathways

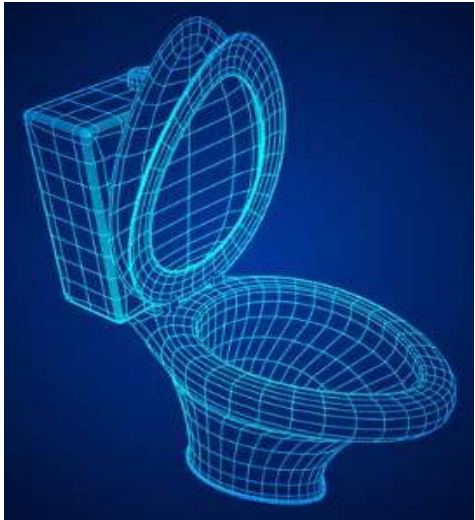
SANITATION 2.0



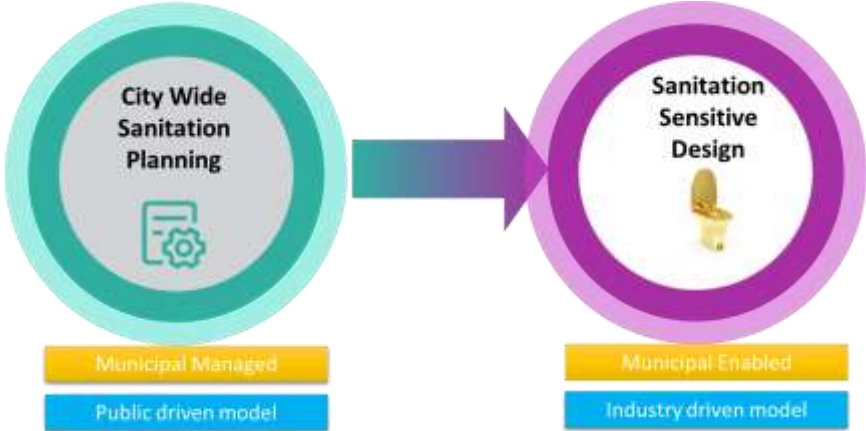
Poop: ~75% Water
Poop: ~25% is fibre, fats, living & dead bacteria, non-biodegradable matter
Urine: N,P, K



Resources can be recovered



Next generation Non-sewered sanitation systems
FSM
Circular Economy



New institutional and social model
Target behaviour change
Valorisation and beneficiation
New social entrepreneurial pathways
Circular economy
New Revenue Models

SANITATION ACADEMY
Building the next generation and cohort of sanitation professionals

INDUSTRIAL PATHWAY

- Industrial information platform
- establishing manufacturing platforms
- Distribution logistics
- Servicing models
- Creating markets



SASTEP

- EFT
- Demonstration
- Market and manufacturing studies

POLICY

- Sanitation White Paper
- Political will
- IPAP
- WATER RDI

TECHNOLOGY STANDARD & REGULATIONS

- ISO 30500
- SABS Draft
- NBR

INDUSTRIAL POLICY ACTION PLAN 2017

- Next Generation Sanitation Cluster Programme
 - The establishment of the next generation sanitation CDP.
 - Development of emerging industry capable to develop new technology, within the framework of localisation.
 - Procurement and policy incentives for improved uptake.
 - Development of high-end skills for advanced thermal sanitation technologies and artisanal skills for operation and maintenance.
 - 20 SMMEs per annum post-implementation.
 - Potential 15,000 jobs at 20% market penetration for the currently unserved.



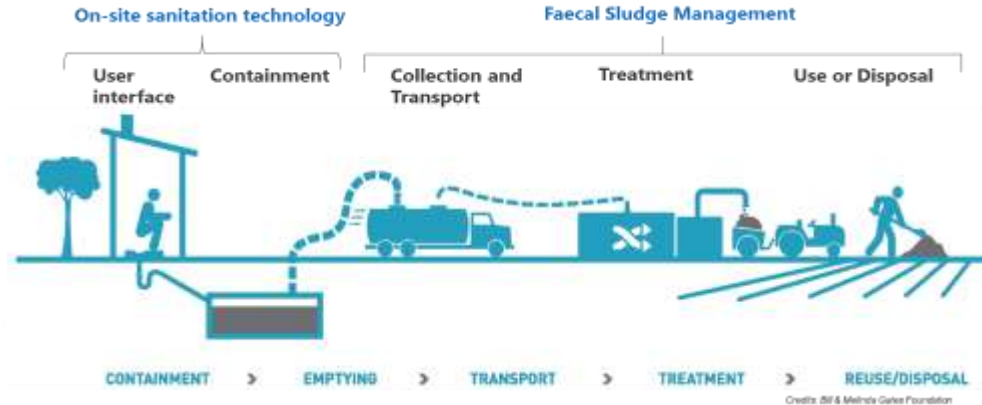
TECHNOLOGY STANDARDS

INTERNATIONAL
STANDARD

ISO/FDIS
30500

**Non-sewered sanitation systems —
Prefabricated integrated treatment
units — General safety and
performance requirements for design
and testing**

*Systèmes d'assainissement autonomes — Unités de traitement
intégrées préfabriquées — Exigences de performance et de sécurité
générales pour la conception et les essais*



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**

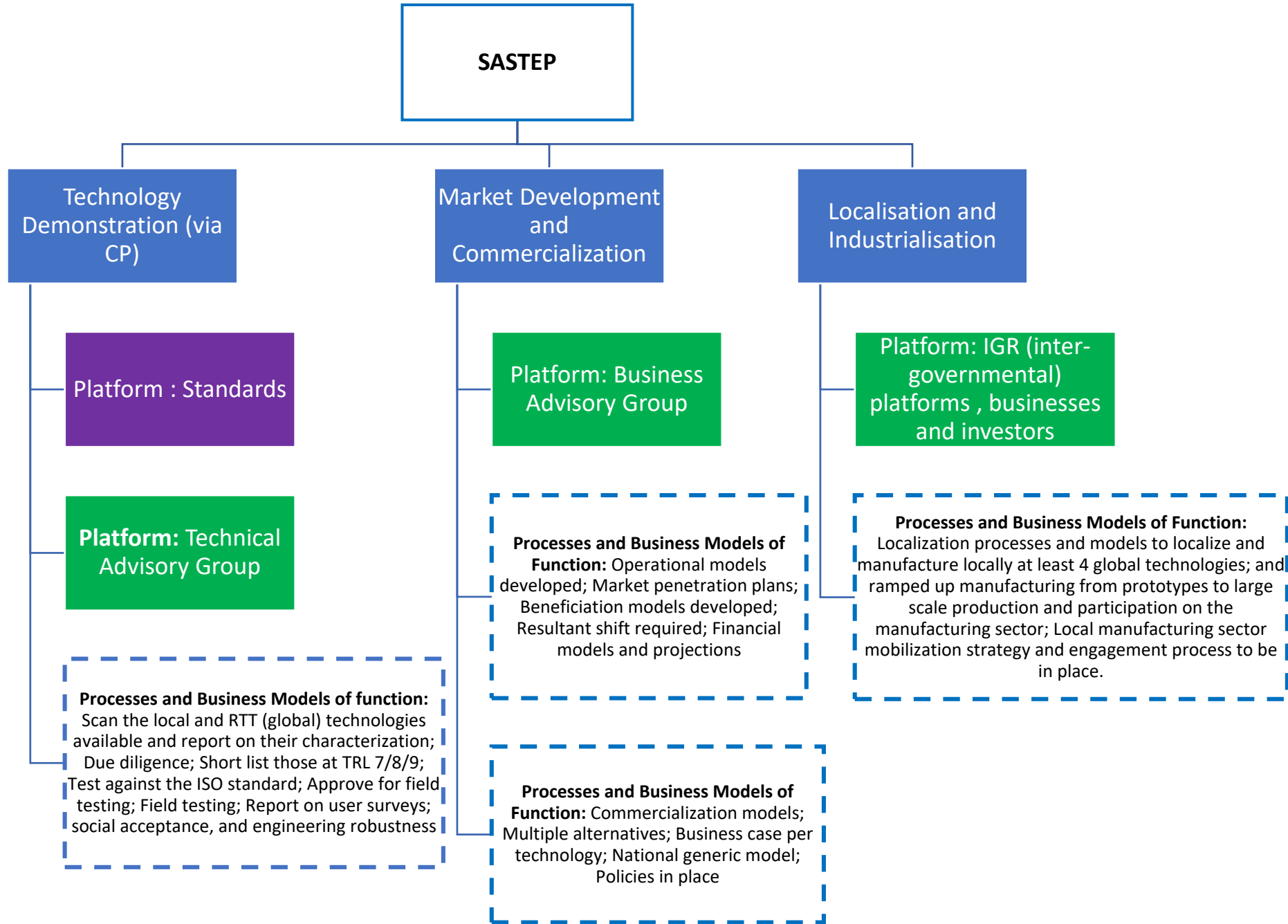
*Activités relatives aux services de l'eau potable et des eaux usées —
Lignes directrices pour la gestion sur site des services d'eaux usées
domestiques de base*

Reference number
ISO 24521:2016(E)

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Not a Flush in the Pan – There is Impetus



EntrePOOnership

In South Africa we on our way to mine a new gold.....

