TOILET
BOARD COALITION

"Star" Rated Public Toilet

TBC GUIDELINES

Acknowledgements

Toilet Board Coalition (TBC) would like to express its gratitude to all the stakeholders who made the accomplishment of this document possible - thanks for their contributions, insights and suggestions.

This document will serve not only as an important guide for the design, use and maintenance of public toilets, but also as a reference framework for smart sanitation city projects, across developing countries.

We would especially like to thank our contributors: Ashish Bhardwaj from Alliance for Water Stewardship, Farhana Rashid from Bhumijo, Yashwant Suthar from Lootel, Nutan Zarapkar from RTI International, Ulka Sadalkar from Saraplast, Rajni Kaushik from TÜV SÜD and Sunil Agarwal & Nimish Shah from TBC for adding meaningful content to the document.

Contents

1. Introduction and Scope

Public toilets, away from homes and residential communities, play an important role in overall livability of a city. The World Bank has noted that "Most people in a city spend a large portion of their day outside of their homes - going to work, to school, to the market, and many other places."

Users of public toilets away from home across situations such as schools, offices, commuting and transport hubs, recreational centres, tourism spots, highways, fuel stations, markets & malls, etc., often experience disgust, filth, poor upkeep, obnoxious odours and risk exposure to pathogens and unsafe environments.[1] In light of the ongoing COVID-19 pandemic, the importance of hygiene is critically apparent.

Today, 55% of the world's population lives in urban areas, a proportion that is expected to increase to 68% by 2050, with close to 90% of this increase taking place in Asia and Africa.[2] Given this, the role of shared sanitation in the form of public toilets has become increasingly critical in urban settings. In order to achieve Citywide Inclusive Sanitation, options for shared and public sanitation facilities must also be considered."[3]

At the Toilet Board Coalition, we have the privilege to work with a number of sanitation economy entrepreneurs operating in the shared and public sanitation facility market. Through our work with them it has become clear that global benchmarking guidelines would be useful to guide their operations and investment in upgrading the customer experience. WHO, in 2012 calculated that "for every US$ 1.00 invested in sanitation, there was a return of US$ 5.50 in lower health costs, more productivity, and fewer premature deaths."[4] Global health organisations and the World Bank have begun recognising the importance and role of shared sanitation, it's quality and safety aspects from a user perspective.

We thus advocate the formal recognition of this important segment of sanitation and the development of user-relevant benchmarks to ensure a minimum quality of service and safer user experience. This piece of work is designed to be a first proposal from leaders in the industry towards that goal.

[1] https://issuu.com/devanshimehra/docs/thesis_project_2016__foley_designs__22bece38f8e7d0/198
[2] https://www.un.org/development/desa/en/news/population/2018-revision-of-world-urbanization-prospects.html
[3] https://documents.worldbank.org/en/publication/documents-reports/documentdetail
[4] https://www.who.int/news-room/fact-sheets/detail/sanitation

Scope

Through consultation with public toilet operators and leading non-profit organisations, this document proposes guidelines for public toilets with the user experience at the forefront. Other forms of shared sanitation, e.g. those within communities/living habitats, are out of scope.

- We have intentionally taken into consideration **female, disabled and child users** too often left out of this equation and ventured to define the minimum standards, ensuring a basic level of service in terms of hygiene, reducing opportunities for the spread of infection, increasing human safety, security and environmental safety, and providing a pleasant experience.
- Furthermore, meeting the aspirational standard would mean conforming to additional aspects related to a bouquet of services: **dignity, health and safety of attendants and maintenance workers, and environmental sustainability of the operations.**
- Promoting responsible use and hygienic behaviour is also a critical aspect of the guidelines.
- The application of **digital technologies, sensors, and automation** has the potential to transform public sanitation facilities in terms of user experience, reliability and response times, as well as economic viability. These aspects have also been touched upon in the guidelines.

Promoting responsible use and hygienic behaviour is also a critical aspect of the guidelines.

Purpose of this guide

The initial guidelines and the corresponding evaluation checklist are proposed to be implemented as a pilot with an existing public toilet providing organisation/entrepreneur. Learnings around user experience, branding of the rating system and impact on the business footfall will be some of the parameters to be considered for refining the guide and thereafter taking it to governmental /policy organisations as well as sharing it with international standards organisations.

Who is it for?

This guide is designed for city and national governments, sanitation entrepreneurs, toilet operators (public and private), NGOs, architects and engineers involved in designing and building public toilets, cleaning equipment manufacturers, tech developers of various kinds of sensors used in these toilets, and institutional cleaning companies like Diversey, Ecolab, Unilever, etc. The document primarily caters to the developing markets.

What is it for?

The guide can help improve understanding of the requirements of users, particularly women and girls, children and people with disabilities using public toilets. It provides guidance on operations and maintenance of Star public toilets and the standards used in upkeep of these toilets, keeping the convenience of the user as the central focus. It also gives a blueprint for evaluation and rating of Star public toilets based on their operation and maintenance, rating the same based on the quality of services, safety, hygiene and such parameters to enable provision of better sanitation facilities that are sustainable – environmentally as well as financially.

How to use this document?

Toilet entrepreneurs and operators can browse through the document and have a look at the self-assessment checklist provided towards the end to see where they stand. In order to better understand the parameters of the rating system, a detailed look at the audit checklist will help them improve the quality of the sanitation service provision.

The current version (1) is to be implemented at a pilot scale in India (2020-2021). A revised version incorporating the learnings from this pilot, is proposed to be published for the second half of 2021.

2. Definition of a Star Public Toilet

Traditionally, a public toilet is a room or small building containing one or more toilets and urinals which is available for use by the general public. Public toilets are commonly separated by gender into male and female facilities, although some can be unisex, particularly the smaller or single occupancy types. Increasingly, they incorporate accessible toilets and features to cater to people with disabilities. They may be unattended or staffed by a janitor or attendant provided by the local authority or the owner of the larger building. A fee may be charged for using the facility.

Public toilets could be located at and provided by shopping centres, supermarkets, eating establishments, food centres, bars, nightclubs, conference halls, cinemas, theatres, parks, tourist sites, public resorts, piers, bus terminals, metro stations, stadiums, public swimming pools and petrol stations. They are generally open to any member of the public. They are different from community toilets, which are used only by members of a specific community.

Smart technologies are increasingly being integrated in sanitation systems which not only make operation and maintenance efficient, but also dramatically improve user experience. Wi-Fi-enabled, solar-powered sensor technologies can make toilets safe and accessible to all. Also, smart sanitation technologies are becoming accessible and affordable. Smart public toilets optimised by usage, environmental and health sensors enable valuable Sanitation Intelligence for city decision-makers, operators, businesses, and users. Real-time surveillance for infectious disease circulation via sensors and sampling in public toilets provides early warning of potential disease outbreaks.

Toilets meeting the TBC's minimum parameters will have a 3,4 or 5 star rating

This guide describes various relevant criteria, translating into different tiers/ ratings of public toilets, based on the quality of service. A Star toilet will have a minimum rating of 3 stars, which corresponds to a reasonably equipped toilet, clean, safe, hygienic, and free of unpleasant odours. 4-star and 5-star toilets offer extra and higher orders of services. We advocate a toilet which does not meet the prescribed minimum parameters is a non-rated toilet.

3. Primary Design and Layout of a Toilet

Location selection

For better visibility and access, the toilet should be located in a safe place which should be directly visible from the road and well lit.

Toilet cubicle

The toilet cubicle should have a door lock with a waste bin, water bidet, and location for the customer to hang personal items. The toilet cubicle containing a low pan should not be less than 90 cm wide and 125 cm deep. The door should open inwards and the high commode should be at least 100 cm wide and 150 cm deep. If the door opens outwards, the size of the commode should be at least 100 cm wide and 125 cm deep. To ensure privacy, toilet partitions should extend no less than 2 m above the floor.

Water tap points within cubicles

For low pan, the water point should not be higher than 30 cm and for high commode it should not be lower than 50 cm to minimise wetting of the floor.

Urinal

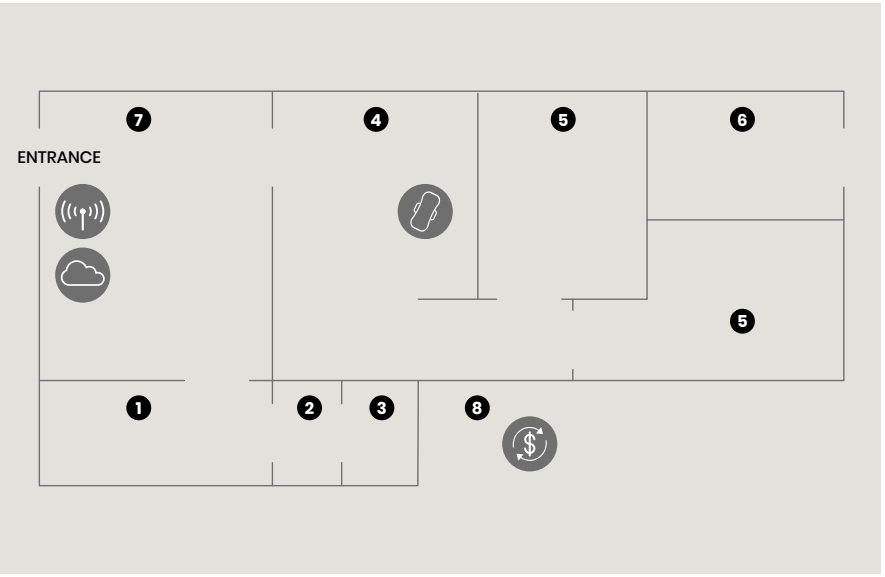
For the sitting urinal, the minimum clear space should be 76.5 cm x 65 cm and for urinal the clear space should be 61 cm x 61 cm. There should be at least a 900 mm clearance in front of the urinal to any wall, fixture or door. Urinals should be separated by modesty boards of not less than 300 mm x 1800 mm (height) to act as a visual barrier between urinals.

Toilets for the disabled

Where feasible, each toilet facility should have at least one toilet for the disabled. These toilets should have bigger doors to enable the wheelchair to move and railings for support. To move the wheelchair, it should have space of 1525 mm diameter. This promotes inclusivity and convenience of use.

FEATURES

1. Operator kiosk
2. Storage space
3. Janitor's closet
4. Counter top wash basins with big mirror
5. Shelves to keep belongings
6. Space to install the sanitary pad incinerator
7. Acess ramp
8. Looscaping (landscaping)



SOURCE: PUNE PUBLIC TOILET POLICY: STANDARD FRAMEWORK FOR PUBLIC TOILETS

Where possible, each toilet should have at least one toilet for disabled.

Bag/cloth hangers in cubicles

Every toilet chamber should have hangers and be able to carry at least 5 kg weight.

Entry

Single entrance/exit plans work satisfactorily provided the paths of the users do not cross each other and it should be at least 152 cm. It is preferred that cubicles, urinals, and mirrors are not visible from the main entrance.

Indirect entry helps privacy. The toilet cubicle/ urinal should be positioned in such a way that it would not be visible from outside.

Window

Window height should be more than 1.8 m so that it is not visible from outside. If the height is lower than this, then frosted glass should be used.

Lighting

Adequate lighting should be provided at every corner of the toilet to avoid any incidents. It is better to have daylight during the day time. Warm-color lighting is preferred for better ambiance. According to the NEA's COPEH, the minimum lighting level shall be 300 lux to ensure that areas with water closets, washbasins, and urinals are sufficiently illuminated. (refer to Safety section).

Ventilation

The toilets should have proper air circulation. For mechanical ventilation, the air exchange rate should have a minimum of 20 air changes per hour. For natural ventilation, the air exchange rate should be 10 air changes per hour. Windows, doors, louvres or other openings to the outdoors can help natural ventilation.

Floor material

Construction materials, especially floor materials, should be safe and impervious. Non-slip homogeneous tiles should be used.

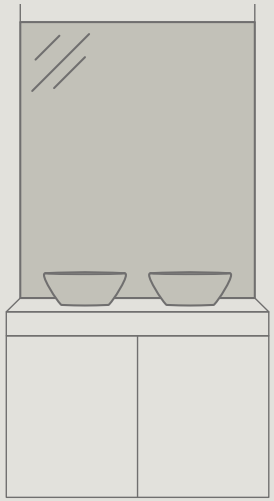
Positioning of exhaust

It should be placed in such a way that the head of the toilet user does not come in direct contact with the exhaust. It should also have a safety net to avoid accidents. The minimum height for it to be placed should be 182 cm.

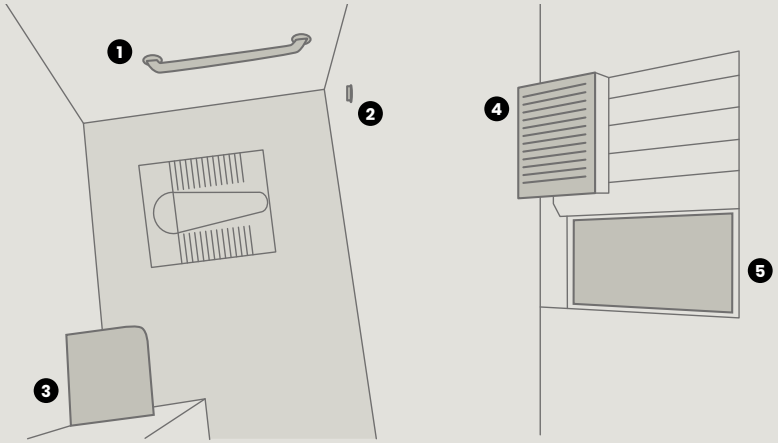
Attendant

The place for the attendant should be pleasant and comfortable. It should be properly lit and well ventilated.

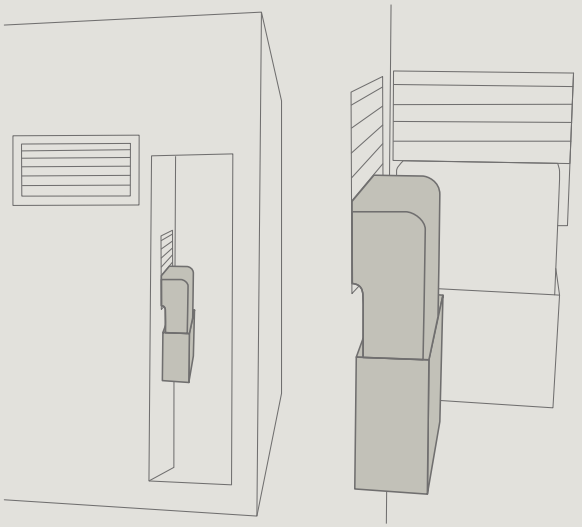
FEATURES



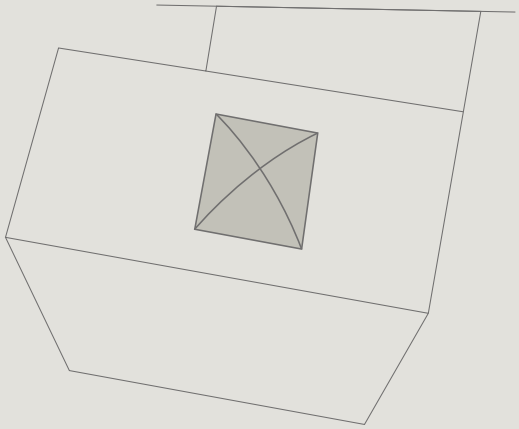
Counter top wash basins with a mirror



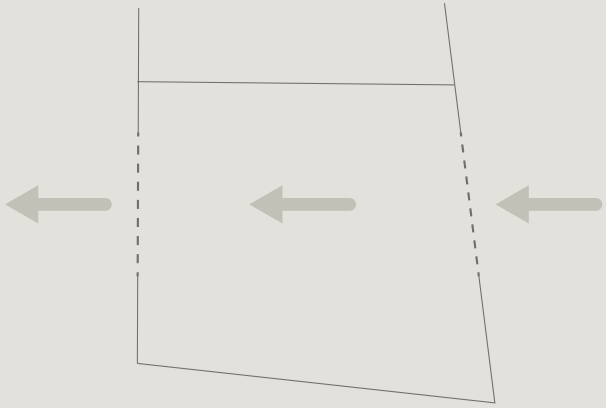
1. Grab bars
2. Wall mounted flush button
3. Shelf to keep belongings
4. Exhaust fan
5. Chute dustbin



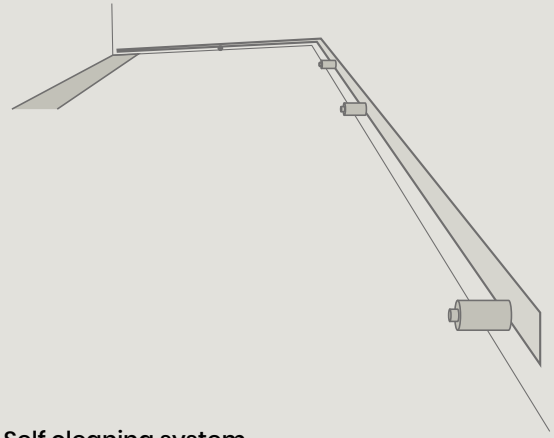
Chute dustbins



Natural light via roof canopy



Cross ventilation



Self cleaning system

SOURCE: PUNE PUBLIC TOILET POLICY: STANDARD FRAMEWORK FOR PUBLIC TOILETS

4. Operation and Maintenance of Toilets

Effective cleaning, responsive maintenance and efficient operations are critical pillars of quality public toilets. Specific standards in terms of training of the cleaning staff are important in obtaining favourable quality ratings.

4.1. Training of cleaning staff

The cleaning staff and janitors are the administrators of the toilets and their efficiency will reflect in the ultimate condition of the Star toilets. Their training hence becomes a crucial part of the project.

4.1.1. Soft Skills Training

Soft skills of the cleaner or the caretaker play a critical role while interacting with the toilet users. They need to be trained in user handling, user interaction, conflict management, and overall communication.

4.1.2. Technical Skills Training

The cleaner is responsible for daily cleaning as well as deep cleaning. In order to have adequate knowledge and practice, the cleaner should undergo the following training:

- Personal safety sraining
- Cleaning chemical training
- Cleaning machinery and tools training
- Know-your-property training

Skills related to different cleaning mechanisms for squat and western toilets also need to be covered in these trainings.

4.2. Cleaning schedules

The term ''cleaning'' refers to all activities related to the provision and use of all cleaning equipment and consumables for predefined activities and schedules for cleaning staff. This schedule will ensure that the toilet facility is clean and hygienic at all times for all users.

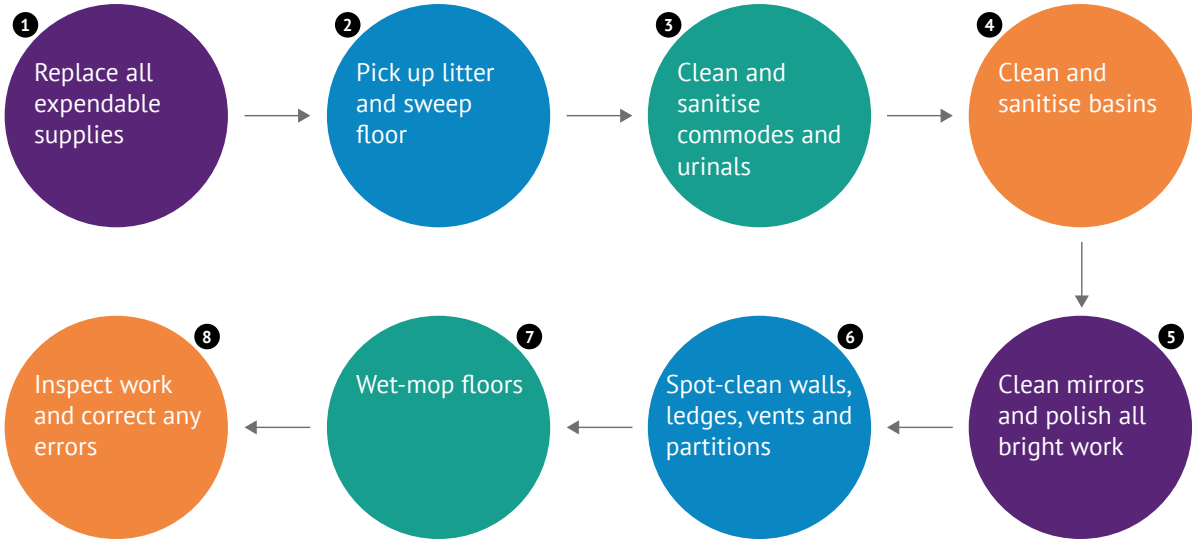
Cleaning Schedule	Tasks
Every few hours/Daily	Taps and sanitaryware to be cleaned thoroughly and all surfaces are sanitised thoroughly using standard recommended.
	Ensure supply of water, soap, hand sanitizer and toilet paper roll (as relevant).
	All accessible toilet floors to be mopped thoroughly and kept as dry as possible and litter free.
	All biological waste (sanitary napkins) to be handled with grabbers only. Proper disposal methods to be defined and used.
	Spot clean doors, handles.
	Replace urinal disinfectant tablets, clear all choked drains.
	Empty waste bin and clean the bin if soiled.
	(Material used: regular cleaning material for the toilet seat, tiles and tap cleanings.)
Weekly	Clean doors, windows, partition walls, walls, ceilings, floors.
	Deep clean toilet bowls with descaling agents.
	Deep clean faucet, flush tank cleaning, health tap cleaning.
	Soap dispensers to be thoroughly cleaned from inside.
	Replace broken tiles, taps or any other vandalised parts.
	Clean drains to avoid choke-ups.
	(Material used: deep cleaning material includes all materials which are used for descaling, dusting, chrome polish and wooden polish for the toilet seat, tiles, faucet, and door cleanings.)
Monthly	Pest control to be done on a regular basis

Cleaning Schedule	Tasks
Cleaning agents	Use only standardised cleaning agents for different surfaces and ensure no unauthorised cleaning agents are being used.
	Safely stock all the necessary cleaning agents based on the cleaning load.
Complaints	Maintain records of complaints received from consumers and resolved.
Contacts	Display contact numbers for: • Emergency • Complaints • Feedback

Use inspection card showing maintenance activities, time, frequency of cleaning and the cleaner's name – in a tabular format.

Follow globally-accepted methodology for cleaning toilets.

4.3. Cleaning sequence



4.4 Regular and timely maintenance

4.4.1 Regular Preventive Maintenance

To reduce maintenance costs and shutdown, regular preventive maintenance is of crucial importance. This includes:

- Toilet seat cover tightening
- Door latch and hinges check-ups
- Flush valve check-ups
- Washbasin drainpipe/bottle trap cleaning
- Fire safety equipment check

Best practice would be to hire trained attendants/sanitary workers who have had formal training in cleaning and maintaining toilets.

4.4.2 Do It Yourself Maintenance

DIY maintenance can be performed by a toilet caretaker or cleaner. It includes fixing small issues like broken equipment, which does not necessarily require technical expertise.

4.5. Essential equipment/bins

4.5.1. Tools and equipment for cleaning

The aid of tools and equipment is a must for maintenance of toilets. Tools include:

Dry and wet mop

Dust collector pan

Keddie for cleaning

Cleaning signage board

Various cleaning machines

4.5.2. Bins for wastage

Various bins for waste collection are:

Dry and wet bins

Small bins for every toilet seat

Bins near washbasin

Biological waste bins

4.5.3. Others

- Use colour coded cloths/wipes for cleaning different surfaces
- Use standardised equipment for cleaning inside the toilets/booths
- Ensure alternative sources of water and provision of water in case of exigencies, otherwise close the facility
- Re-use treated water for flushing, wherever possible
- Install water softener at every sanitation facility

> ***"Communal facilities should be regularly cleaned*** *by staff who are rewarded for their work, and who are adequately trained and equipped."*
>
> **WHO**

5. Safety and Security

The public toilet location proves to be of utmost importance in ensuring safety and discouraging any unlawful activities.

Visitors, operators and cleaners should have safe access and exit.
The measures also include protection against vandalism and against the occurrence of any antisocial activities.

The safety standards refer to the following aspects:

Location: The location of the toilets should not be too secluded. It should be within the reach of a main road/settlement and visible from the road/walkways.

Concealment of interior water supply and drainage piping: to protect them against acts of vandalism, water supply and drainage piping connected to toilets and basins should be concealed.

Monitoring and surveillance CCTV surveillance devices should be provided outside the entrance of the public toilet premises in areas of high traffic like stations, airports, etc. These CCTV cameras outside the toilets should function well.

Locking of toilet facilities: For public toilets that have an opening and closing time (i.e. in some tourism sites/attractions or in shopping malls, etc.) the windows and entrance of public toilets should be locked during non-operating hours.

Clear signage: There should be clear signage demonstrating a male/female public toilet. Follow a globally-accepted standard signage for male and female toilets.

Structure: The toilet cubicle main entrance could be doorless but designed like a maze to block the direct view into the toilet, wherever possible.

Maintenance: The electrical maintenance schedule should be followed and there should not be any loose wires. Each cubicle must have a fully-functioning door, latch and a hook to hang a purse/bag on. A contact number should be displayed at all times in case of emergencies.

Appropriate lighting: The public toilet ought to have some standard provisions for lighting:

Interior lighting: The interiors of the toilets should be illuminated well and be bright enough at all times, especially when natural light is not available. Entrances, exits, wash areas, cubicle and urinal spaces should have ample light which helps to prevent vandalism and ensures protection.

Exterior lighting: Entrances, exits, walkways, paths, parking spaces and open areas where access to the toilet is required should be illuminated in order to encourage access and to prevent tripping accidents. This also increases the visibility of the toilet and prevents vandalism.

Emergency lighting: Emergency lights should be provided in a toilet to allow for a safe exit from the toilet.

General lighting: Warm colour lighting helps creating a user-friendly and more polished ambiance than cold colour lighting.

Natural lighting should be harnessed and put to the best use. Adequate artificial lighting should be made available in the absence of natural light.

Artificial light: The average illumination should be between 100-300 lux over the area of the room to allow for proper cleaning, correct use, and safety.

There should be clear sign boards demonstrating a male/female public toilet

Materials: The toilet should be provided with durable materials due to expected high usage:

Internal: To withstand the effects of weathering, heavy utilisation, vandalism and heavy cleaning application, all fixtures, fittings, piping, valves, accessories should be durable. Floors should be made of waterproof, anti-slip surfaces (i.e.: stone, ceramic tiles, composite granite with nano coating and other durable surfaces); walls should be covered with durable surface material (i.e. ceramic tiles, glass block, natural stone and other durable surfaces).

External: The exterior surfaces should be coated with or constructed with durable, anti-graffiti material, wherever possible. There should be no sign of structural cracks/defects.

Cleaning safety: Cleaners should be provided with appropriate insurance coverage according to the local regulatory requirements. There must be a female attendant present for female toilets. The toilets should be empty during maintenance, especially female cubicles.

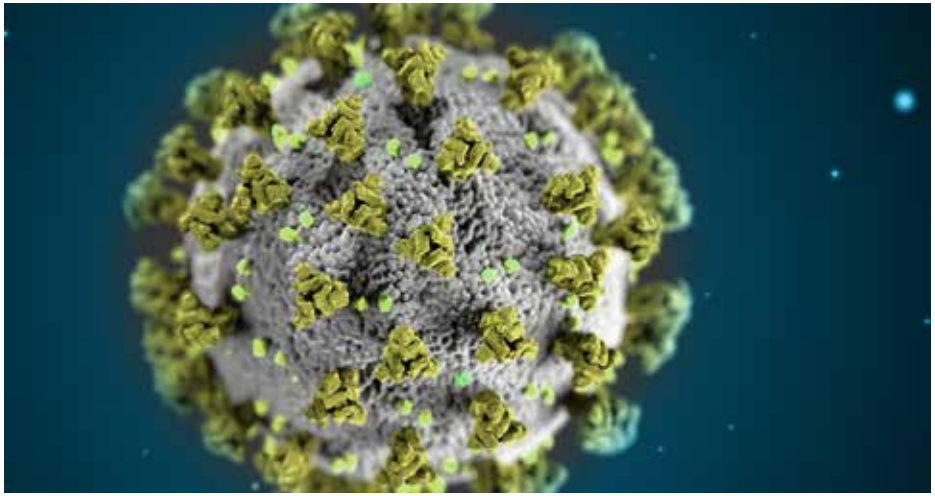
Infection control and physical distancing norms: Against the backdrop of COVID 19, public toilets are emerging as potential high-risk sites for infection spread among users, attendants and cleaning and maintenance personnel.[5] Responses to address this risk include increasing the frequency of cleaning and sanitisation, preventing crowding, maintaining physical distancing and technical and design solutions for hands-free operation of taps, doors, knobs, soap and sanitizer dispensers.[6] User education for correct behaviours regarding use of toilets, reinforcing infection control and physical distancing are critical as well.

PPE use, sanitisation of touch surfaces, deep cleaning, disinfection and rigorous preventative maintenance are critical areas requiring strengthening, including relevant additional training for attendants and O&M staff. Existing toilet designs need to be suitably modified and upgraded and new toilets being constructed need to incorporate these changes in design, provisions, operation and maintenance.[7] Visual communication reminding of exposure risks and adoption of hygienic behaviour, precautions such as not entering facility without masks, must be evident and must be enforced/encouraged.[8]

[5] https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7301880/
[6] https://www.forbes.com/sites/alexandrasternlicht/2020/05/21/should-you-avoid-public-bathrooms-to-remain-coronavirus-free/#48d72ab82106
[7] https://www.theguardian.com/society/2020/may/04/sensor-taps-door-handles-covid-19-rethink-public-toilets-bathroom-design
[8] http://164.100.117.97/WriteReadData/userfiles/PSA_DenseAreaGuidelines_Version8.pdf.pdf

Public

toilets are a daily necessity but also become dangerous if used improperly, **especially against the current scenario of a global pandemic.**



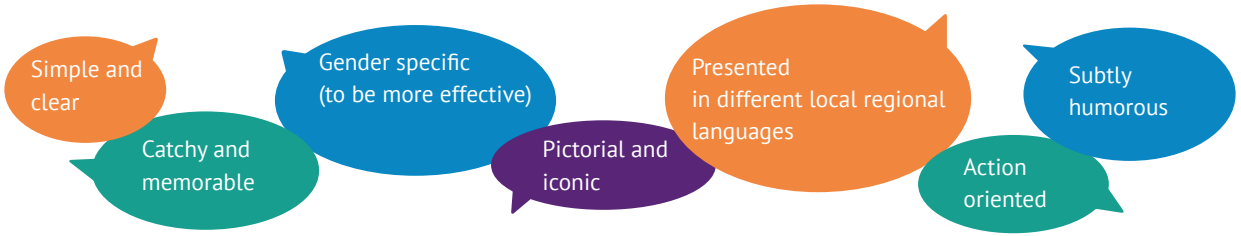
6. Star Toilet User-Awareness and Education

Respect and proper use of the toilet facility can be encouraged by effective communication on site.

6.1. Communication for awareness

- To influence users to keep the toilet clean and to prevent them from damaging and mishandling the toilet assets, an effective communication in terms of pictorial messages, behaviour change awareness campaigns in the form of plays, stories, dance, training etc. is essential.
- Educational posters should be used in the interior as well as the exterior of toilets to remind users to practise proper toilet etiquette and highlight their individual roles in keeping the toilets clean.
- Use of powerful slogans and taglines encourages responsible social behaviors and provides a better experience for the next users.
- The placement and position selected for display should maximise the reach and effectiveness of the message. (ex: above the urinal wall, at the wash basin area, above the waste bin, etc.).
- For better durability, the posters or stickers should be made of strong and lasting material. (Ex: vinyl material, rather than paper.).

For the message to be effective and convincing, it has to be:



6.2. External platforms or creative art forms

- In order to maximise awareness and identifying responsibilities, creative forms of art or digital spaces like online games and puzzles can be made available.
- Personal interactions in schools, organisations and public spaces can be made to appeal to people about sanitation behaviours.
- A 'learning-by-doing and observing' model could be implemented in schools to teach the importance of cleanliness and discipline in terms of restroom cleaning. This will enhance responsible behaviour and increase appreciation towards attendants.

6.3. Best Practices in using Star Toilets

DO'S

Wash hands with soap after use.

Always flush after use; throw sanitary napkins /tampons in the bin; keep the toilet seat clean and dry; throw tissues in dustbin; close the tap after use.

Inform the attendant, if any tap is damaged or toilet is dirty, damaged.

Use a tissue paper or hand dryer to wipe off hands to avoid spillage of water on the floor.

Turn on the exhaust fan once you are inside the toilet.

Observe physical distancing while using men's urinals especially during threats of communicable diseases.

DON'TS

Do not forget to use the flush once you are done. Check the toilet seat for unwanted stains or substances. Do not hesitate to call the toilet attendant if the flush is not working or if you find the toilet dirty.

Do not throw anything in the commode. Tissue paper must be thrown into the dustbin and nowhere else. Sanitary napkins must be wrapped in polybags and disposed of in the designated bins.

Do not spend more time than required inside the toilets. Avoid speaking on the phone, reading newspaper etc. inside the toilet. Always keep in mind that other people may be waiting outside to use the toilet.

Do not jerk and spread water around the basin and on the floor whilst washing your hands.

Do not steal anything from toilet. (Light bulbs, soap, tissue papers, fresheners etc.).

Do not spit nor write on the walls.

Do not smoke inside the toilet.

Do not leave the door open. Close it properly even after use.

7. Environmental Sustainability

There is a direct link between sanitation and environment. Poor sanitation conditions affect land, water and air. in the scope of these guidelines we discuss environmental sustainability specifically through the re-use of water and toilet resources (human waste).

In most developing countries sewage is left untreated thereby polluting land, water and air which is an immense hazard to the public. In order to avoid such huge public and environmental costs, it is essential to introduce and implement Circular Sanitation Economy concepts.

What is the Circular Sanitation Economy?

Toilet resources feed into a system which replaces traditional waste management with a Circular Economy approach. It connects the biocycle, using multiple forms of biological waste, recovering nutrients and water, creating value-adding products such as renewable energy, organic fertilisers, proteins, and more. The Circular Sanitation Economy involves many actions which finally result in upcycled products from toilet resources. It begins with waste input collection and transport of biological waste. Those inputs then go through various treatments and are processed at the recovery plants to produce safe and valuable products. These upcycled products are sold back to farmers, businesses, homes and manufacturers for consumption, hence completing the loop.

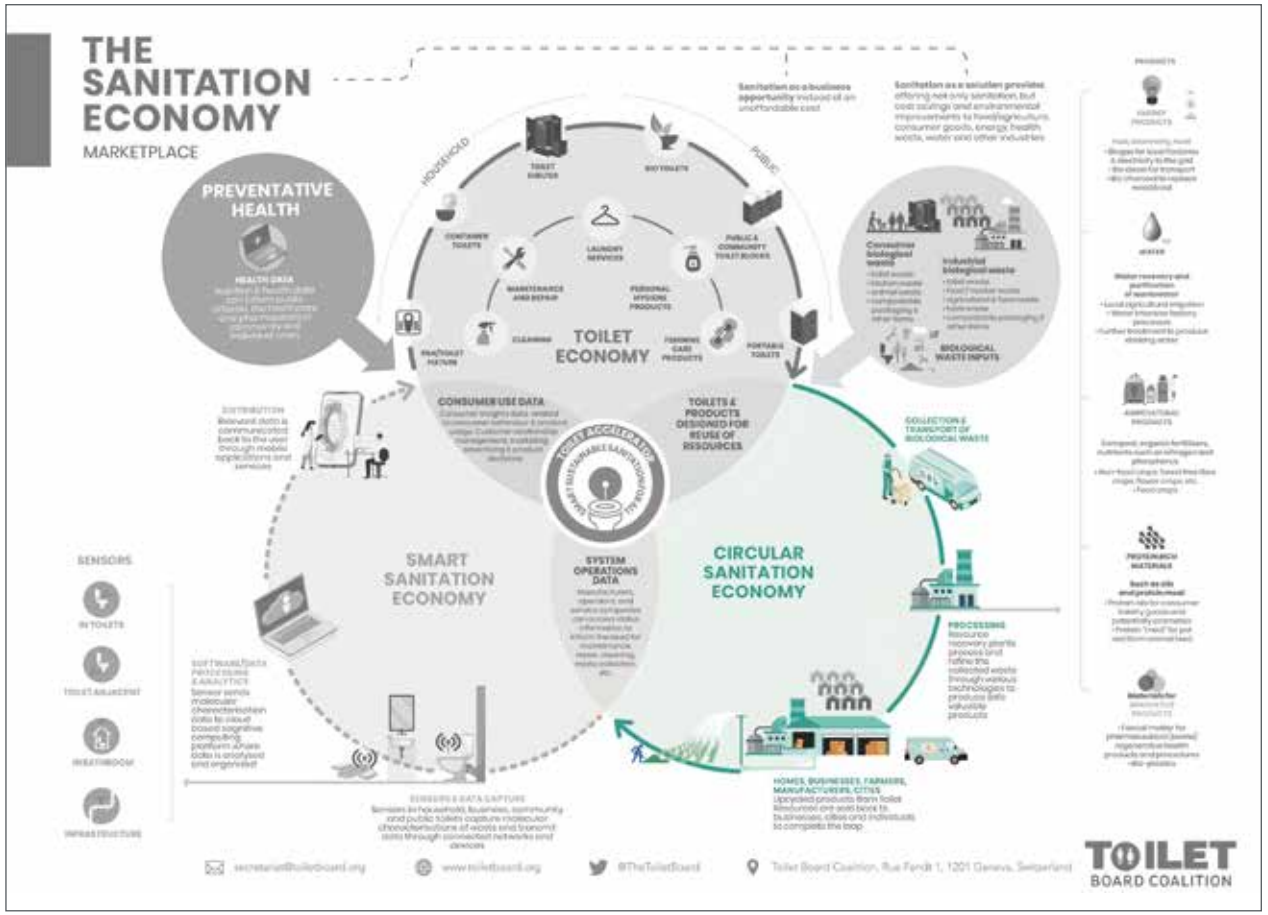
The Sanitation Economy offers new ways of looking at sanitation systems: as a solution provider for sectors and governments facing constraints on essential resources such as water, nutrients, energy and proteins; as a reservoir of information about human health and behaviour; and as a test bed for innovation and new technologies that reinvent the toilet and its ecosystems. It leverages new business models and disruptive technologies together with established technologies and businesses with scale to transform sanitation systems. Hence, whatever humans put out in the environment is ultimately consumed by them, either as the nutrients in the soil or as products made out of the waste.

(See infographic next page)

The following can be practised to ensure judicious use of the resources:

- The grey water can be detoxified by using technologies to separate the contaminants and it can flow back in the water bodies of the city/town. Water management is possible by the methods of rain water harvesting, taps with sensors or low-pressure faucets.
- Use of solar panels to generate the energy required for the sanitation processes can make them energy-efficient. Biogas energy which is produced by the breakdown of organic matter can be used for electricity production for sewage works.

- Recovery of nutrients (like phosphorus) from the toilet resources have multi-fold socio-ecological benefits as it is one of the most important nutrients used for food production.
- Segregation of toilet paper waste and menstrual waste can be practised in the Star public toilets to ease further the sanitation processes.
- Timely desludging to avoid the overflow can be practised by building a septic tank to collect the extra sludge.
- To avoid air pollution, the design of the back end system should be such that emissions of bioaerosols and endotoxins are minimised and that air pollutants released indoors and outdoors do not exceed the thresholds.



Visit our website for more details on the Sanitation Economy: www.toiletboard.org

Self-assessment check list

Date	
Executed by	
Address	
Contact #	

Tick the relevant Yes/No boxes

		Yes	No
1	**Toilet Entrance**		
1.1	Signage is clear and easily visible from a distance, wherever possible		
1.2	Separate entrance for male/female toilets, wherever possible		
1.3	Accessibility to the toilets has a ramp for wheelchairs, wherever possible		
2	**General**		
2.1	Walls and ceiling are clean, dry and dustless		
2.2	Floor is clean, intact, fairly dry and litter-free		
2.3	There is no bad odor/smell in the toilet		
2.4	Ventilation/openings for air circulation are in place and functioning		
2.5	Basic amenities are in place (i.e. soap, sanitiser, bins, mirrors, tissues, etc.)		
2.6	Resource and water saving measures (sensor taps, natural light, etc.) are implemented and functioning		
2.7	Waste management and water treatment systems are in place		
2.8	Privacy: maze entrance, urinals and cubicle partitions are provided for, wherever feasible		
2.9	Suggestion box and education material are in place		
3	**Wash area**		
3.1	Taps, hand dryers, litter bins are in place and working		
3.2	No leakage, no damage to the fittings, fixtures and plumbing		
3.3	Soap dispensers and tissues are in place, working and filled		
3.4	Wash area is overall clean, fairly dry, tidy and litter-free		
4	**WC**		
4.1	Cubicle door is clean, functioning and latched; lock/latch are intact		
4.2	WC has a toilet seat and lid (in the case of western toilet)		
4.3	Bag/coat hook is in place and intact		
4.4	Toilet bowl/squat seat are intact and unclogged, not stained		
4.5	Cubicle floor is uncluttered, clean and fairly dry		
4.6	Manual/auto flush is clean and functioning		
4.7	Toilet paper dispenser where provided, is intact and replenished		
4.8	Sanitary bin (hands-free with foot pedal) with liners is in place, is fairly dry, clean, sanitised, odorless, intact		
4.9	Waste bin (hands-free with foot pedal) with liners is in place, is fairly dry, clean, sanitised, odorless, intact		
5	**Urinals**		
5.1	Urinals are intact and unclogged, not stained		
5.2	Manual/auto flush is clean and functioning		
6	**Safety & Security**		
6.1	Internal and external lighting is in place and functioning		
6.2	Non-invasive, privacy respecting surveillance is in place		
6.3	Walls and ceilings are intact, not cracked		
6.4	Absence of loose electrical wires within the sanitation facility		
6.5	All cleaning equipment is sanitized with appropriate relevant standard recommended agents		

		Yes	No
	Additional measures during pandemics (e.g. current COVID 19)		
6.6	People are following social distancing norms while waiting for their turn to use the toilets		
6.7	Toilet users are wearing face mask while stepping into the sanitation facility		
6.8	People are using hand sanitiser while entering and leaving the sanitation facility		
6.9	All common surfaces that are touched by users are sanitised every 2 hours with a standard/widely recommended disinfectant		
6.10	The staff are wearing face masks and gloves while interacting with the toilet users		
6.11	The staff maintain social distancing norms during customer interaction		
7	**Smart elements (if available in the sanitation facility)**		
7.1	Device/sensor to capture the number of people walking into the facility at any given point of time, is in place and functioning		
7.2	Device/sensor to capture temperature, light, humidity inside the facility is in place and functioning		
7.3	User feedback device is in place and functioning		

Source: https://www.asean.org/wp-content/uploads/2012/05/ASEAN-Public-Toilet-Standard.pdf

Audit check list

No.	Parameter	3*	4*	5*
1	Where feasible, clear and commonly recognisable signage in passageways and at toilet premise	√	√	√
2	Privacy: toilet interior not visible from outside			√
3	Privacy: appropriately sized and sited modesty boards in between urinals		√	√
4	At least fully equipped standardised handicapped cubicle			√
5	Provision of ramp/s for wheelchair access where toilets for the disabled are provided		√	√
6	Distress alarm for emergencies is inside toilets for the disabled and is functional			√
7	Provision of WC/urinal for children		√	√
8	Provision of hand bars for the elderly in at least one cubicle			√
9	Presence of user visual education material (viz. no smoking, importance of hygiene, cleanliness, etc.)		√	√
10	Sensor/manual (elbow or foot operated) taps are present	√	√	√
11	Manual flush is present and functional	√	√	√
12	Auto flush is present and functional			√
13	Flushes are not leaking and not rusty		√	√
14	Cleaning equipment is stored and kept properly in a separate closet		√	√
15	Natural lighting is used amply			√
16	General lighting: warm colour lighting		√	√
17	Provision to prevent of backflow from supply lines and fittings to fixtures	√	√	√
18	Urinals, WCs and squat pans are in place, not damaged	√	√	√
19	Urinals/WCs (bowl/seat/squatting pan) are clean (no stain)		√	√
20	Installations provide easy access for cleaning and repair	√	√	√

No.	Parameter	3*	4*	5*
21	Wash basins are in place and functional	√	√	√
22	Wash basins are not leaking and not choked		√	√
23	Wash basins are clean (no stains) and the area around them is reasonably dry		√	√
24	Sanitary bins are in place	√	√	√
25	Sanitary bins are hands free, with lining, are clean and not smelly			√
26	Waste bins are in place	√	√	√
27	Waste bins are with foot pedal, lining and are clean and not smelly			√
28	Soap dispenser is in place, working and with supply of soap	√	√	√
29	Hand dryer or jet towels or paper towel dispensers are in place, firm and with supply			√
30	Mirror/s are available, intact and clean		√	√
31	Signage on toilet door/near entrance is present and is clear	√	√	√
32	Entrance to the toilet and corridor are clean	√	√	√
33	Entrance to the toilet is clean and reasonably dry		√	√
34	The toilet is clean overall	√	√	√
35	The toilet is clean overall and reasonably dry		√	√
36	The cubicles are clean overall	√	√	√
37	The cubicles are clean overall, reasonably dry and litter-free		√	√
38	Hand washing area is clean	√	√	√
39	Hand washing area is clean and reasonably dry		√	√
40	Overall maintenance (replacement of faulty fixtures, small repairs, reporting of incidents) of the toilet is good		√	√
41	Absence of bad smell		√	√

No.	Parameter	3*	4*	5*
42	Mild pleasant fragrance is emitted in the facility			√
43	Water supply is ample and clean	√	√	√
44	Toilet paper roll dispenser is in place with supply	√	√	√
45	Sanitiser dispensers are present, working and with supply			√
46	Bag/coat hooks are in place and firm		√	√
47	Cubicle doors/locks are in place, firm and working	√	√	√
48	Cubicle walls/doors/locks are clean		√	√
49	Window panels/exhaust air vents are clean and intact		√	√
50	Mechanical ventilation or ceiling or wall fans are clean and functional			√
51	Flooring is intact and not damaged	√	√	√
52	Flooring is reasonably dry and clean		√	√
53	Flooring is anti-slip			√
54	Floor drainage traps (inside and outside cubicles in the washing area) are clean and unclogged			√
55	Walls/ceilings are clean		√	√
56	Internal walls are without cracks or any other damage			√
57	External walls are without cracks or damage or graffiti			√
58	Scheduled cleaning is undertaken	√	√	√
59	Cleaning schedule is displayed for anyone to see			√
60	Display of emergency, complaints and feedback numbers are prominent			√
61	Absence of loose electrical wires within the sanitation facility		√	√
62	Attendant/cleaner are professionally trained		√	√
63	Suggestion box is in place and clean		√	√
64	User feedback device is in place and functioning			√
65	Internal lighting is functional	√	√	√
66	Emergency lighting is present and functional			√
67	Pleasing interior designs (i.e. plants, thematic designs)			√
68	Hand bars/railings for the aged/handicapped are fixed tight and intact			√
69	Provision of nappy changing station		√	√
70	Cleaning agents used respect the local environmental and safety regulations		√	√
71	Standardised, legally approved waste and water management and treatment systems are implemented		√	√
72	Footfall counting devices are present and are functioning		√	√
73	Indoor temperature sensor is functional and the temperature is comfortable			√
74	Indoor humidity level capturing sensor is functional and levels are maintained			√
75	Seating available (indoor or outdoor)			√
76	Non-invasive privacy-respecting surveillance is in place			√
	Additional measures during pandemics (e.g. current COVID 19)			
77	People are following social distancing norms while waiting for their turn to use the toilets	√	√	√
78	Toilet users are wearing face-mask while stepping into the sanitation facility	√	√	√
79	Users are using hand sanitiser while entering and leaving the sanitation facility	√	√	√
80	All common surfaces that are touched by users are sanitised every 2 hours with a standard recommended disinfectant	√	√	√
81	The staff are wearing face masks and gloves while interacting with the toilet users	√	√	√
82	The staff maintains social distancing norms during customer interaction	√	√	√

Source: https://www.asean.org/wp-content/uploads/2012/05/ASEAN-Public-Toilet-Standard.pdf

About the

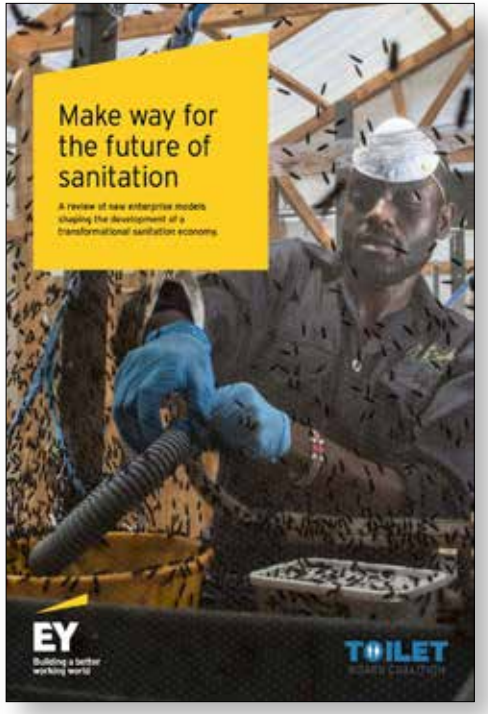
TOILET
BOARD COALITION

Established in 2015, the Toilet Board Coalition (TBC) is a business-led partnership platform with the goal to accelerate the transition to the Sanitation Economy. Our ambition is to transform sanitation systems from unaffordable public costs into robust marketplaces of sustainable business value.

The TBC is facilitating private sector engagement; large company - small company partnerships; and publicprivate collaboration to contribute to the achievement of Sustainable Development Goal 6 - universal access to water and sanitation.

We run the Toilet Accelerator, the world's first accelerator programme dedicated to Sanitation Economy business solutions that are smart, circular, and resilient to address the unmet sanitation needs of the world's most vulnerable.

The members of the Toilet Board Coalition believe that accelerating the Sanitation Economy will deliver significant benefits to business and society.



For more publications, visit **www.toiletboard.org**

TOILET
BOARD COALITION

secretariat@toiletboard.org
www.toiletboard.org
@TheToiletBoard
Toilet Board Coalition, Rue Fendt 1, 1201 Geneva, Switzerland