



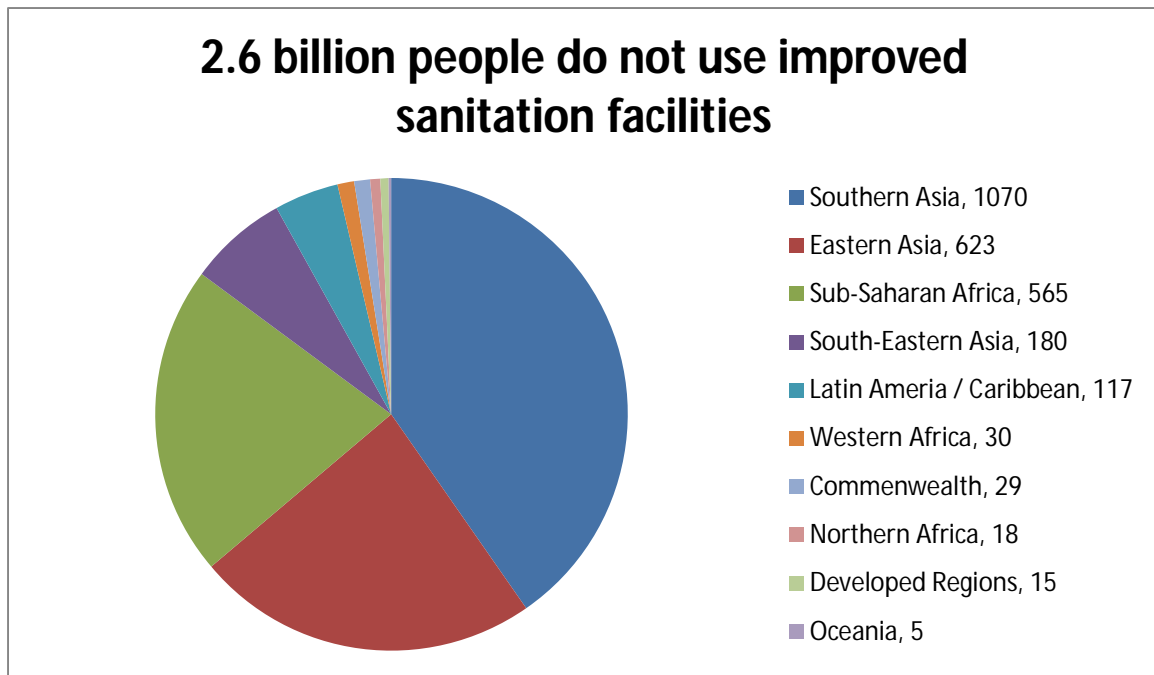
Sanitation as a Lifestyle

The XIPOTI Concept to House Hold Sanitation

Frisian Urban Sanitation Programme, 2011

The Challenge

No public health intervention in the past 200 years has done more to save lives and improve health in the world’s wealthy nations than clean and safe sanitation¹. Despite the obvious health, environmental and economic benefits and increased dignity, privacy and security resulting from access to clean and safe sanitation, there seem to be little interest from people to invest in the current available solutions and technologies. Sanitation is not a lifestyle in many parts of the world. 2.6 billion people do not have access to a facility at all or face the everyday challenge of fly infested, smelly, dark and unsafe sanitation facilities. The majority of these people are found living under poor and harsh conditions in Southern and Eastern Asia and sub-Saharan Africa.



JMP report 2010

¹ Bill and Melinda Gates Foundation, Water, Sanitation and Hygiene, Strategy Overview, 2011



Current scenario - existing squatting pans, common superstructure made of plastic bags and widespread use of open defecation

In Mozambique, past efforts initiated immediately after independence in 1975 managed to really put sanitation on the agenda and make a significant impact on coverage. Unfortunately, issues of sustainability have over time undermined these efforts. Current efforts ranging from supply to demand driven, including hybrid approaches do not seem to really result in positive developments in coverage figures. Hence, Mozambique is not on track to meet Millennium Development Goal 7 on sanitation.

Efforts such as public education campaigns have mainly focused on vulnerable groups and are in many cases based on health arguments often from a negative angle. Still, many people do not attribute transmission of diseases to poor sanitation. People blame disease on poor water quality to a much greater extent than on poor sanitation. For example, most people faithfully follow cleaning routines but demonstrate less awareness on hygiene fundamentals.



XIPOTI - Life Begins with It

The turning point is to move away from selling/promoting toilets and/or health benefits to offering a new lifestyle that entails a wide range of perceived benefits by the people purchasing the XIPOTI concept. It then becomes our aim to satisfy people's needs and wants to acknowledge that people are more interested in acquiring perceived benefits with their purchase, rather than just the mere physical object of a toilet.

People generally buy unbranded cheap sanitation products (such as hand washing soap, toilet cleaning disinfectant) but use branded personal beauty products (such as bathing soap, shampoo, hair oil). Almost all personal hygiene products bought, project a self-image that consumers identify with. On the other hand, users are unable to identify with the current sanitation products available on the market, as they are mostly generic or unbranded. While most personal hygiene products are connected to driving personal beauty, there is an absence of any connection between better sanitation and aspirational self-image.

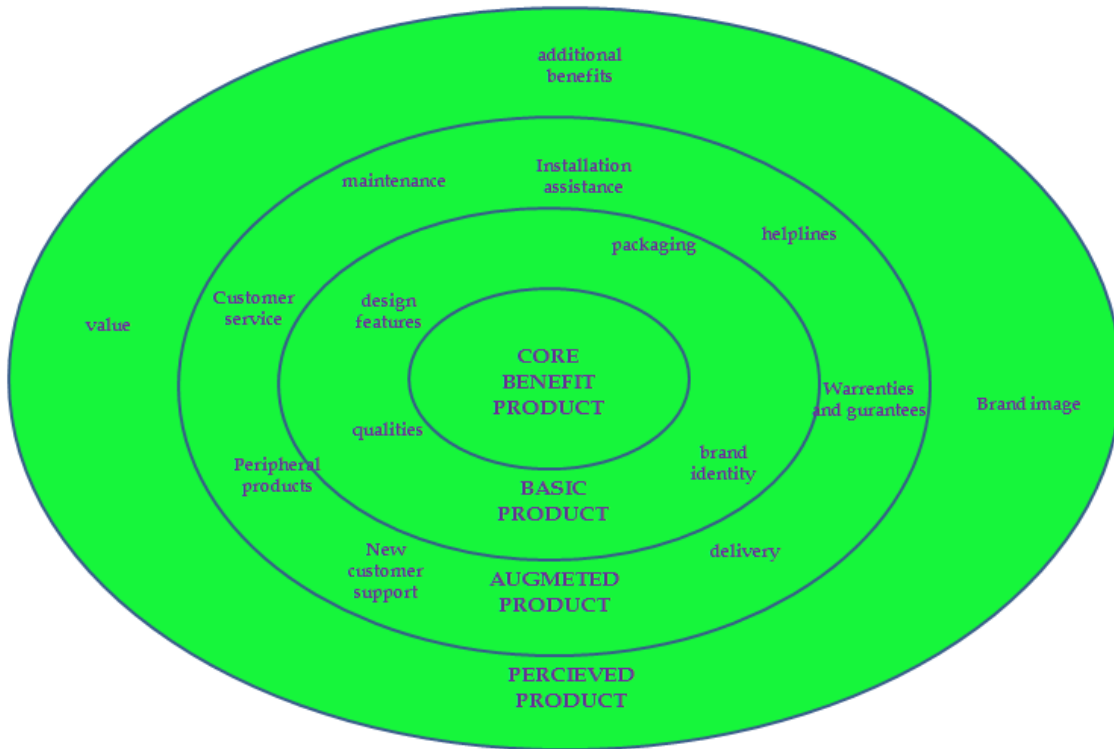
In the hierarchy of household spending priorities, consumption of sanitation products gets undermined compared to things such as food and utilities because users do not view them as essentials. In order to turn sanitation into a lifestyle, it becomes paramount to elevate the status of sanitation products in the spending hierarchy, while balancing between capacity for expenditure and peoples aspirations.

The below table depicts the expenditure profile of Mozambican households. It does not have a specific sanitation expenditure category, thus it is impossible to trace exact expenditure on sanitation. Furthermore, the urban category includes more cities than the ones that are considered municipalities..

QUADRO 2.1 DESPESA MÉDIA MENSAL DOS AGREGADOS FAMILIARES POR TIPO DE DESPESAS, SEGUNDO CARACTERÍSTICAS SELECIONADAS (em Meticals a preços correntes). MOÇAMBIQUE 2008/9

Características Seleccionadas	Total	Produtos alimentares	Bebidas alcoólicas	Vestuário e calçado	Habitação e combustível	Mobiliário	Saúde	Transportes	Comunicação	Lazer e recreação	Educação	Restaurantes hotéis, cafés	Bens e serv. diversos
Total	3,300	1,695	21	207	749	201	13	154	76	62	20	24	79
Área de residência													
Urbano	5,333	1,876	47	303	1,656	400	30	356	207	147	63	58	191
Rural	2,466	1,621	11	167	377	119	6	71	22	26	2	10	33
Região													
Norte	2,876	1,629	20	223	511	174	9	124	47	58	5	18	58
Centro	2,723	1,742	8	162	473	125	4	68	50	29	5	19	37
Sul	4,953	1,710	47	264	1,593	374	34	350	162	12,628	67	43	186
Provincia													
Niassa	3,926	2,063	29	417	409	340	25	225	74	115	7	48	173
Cabo Delgado	2,929	1,863	31	208	485	147	4	74	36	34	2	14	30
Nampula	2,536	1,396	12	170	552	135	7	115	44	52	6	10	35
Zambézia	2,084	1,328	7	123	355	92	4	57	60	18	2	19	19
Teite	3,463	2,456	7	155	576	105	4	67	27	20	5	7	34
Manica	3,085	2,004	12	147	548	154	4	45	35	30	3	41	63
Sofala	3,145	1,700	9	286	581	210	6	124	68	68	16	13	64
Inhambane	3,116	1,622	13	161	786	197	10	140	52	47	9	11	68
Gaza	2,963	1,440	20	173	772	210	12	130	75	59	7	9	56
Maputo Provincia	4,197	1,610	17	206	1,333	347	22	287	84	107	49	12	124
Maputo Cidade	10,497	2,262	157	570	3,872	815	105	943	500	319	231	163	562

If we want to genuinely reach people without access to improved sanitation, we must consider the sum of factors that makes up and surrounds the sanitation product that we want them to purchase such as branding, servicing, design features and customer support. Based on the Total Product Concept, we must constantly try to improve on each of these elements in order to strengthen people’s perceived positive benefits of the product.



Total Product Concept,
 developed from Theodore Levitt’s articles in the Harvard Business review
 - “Marketing Myopia” and “The differentiation of almost anything.”

The modular system

Most urban and peri-urban people aspire for a modern flush toilet. However, it is neither affordable nor desirable in light of current water scarcity challenges and focus on environmental sustainability.



The XIPOTI allows the user to experience the sensation of a modern flush toilet without using water.

It is an affordable, dignified, sustainable, modular sanitation technology. The modular system is based on two basic modules and several additional modules.

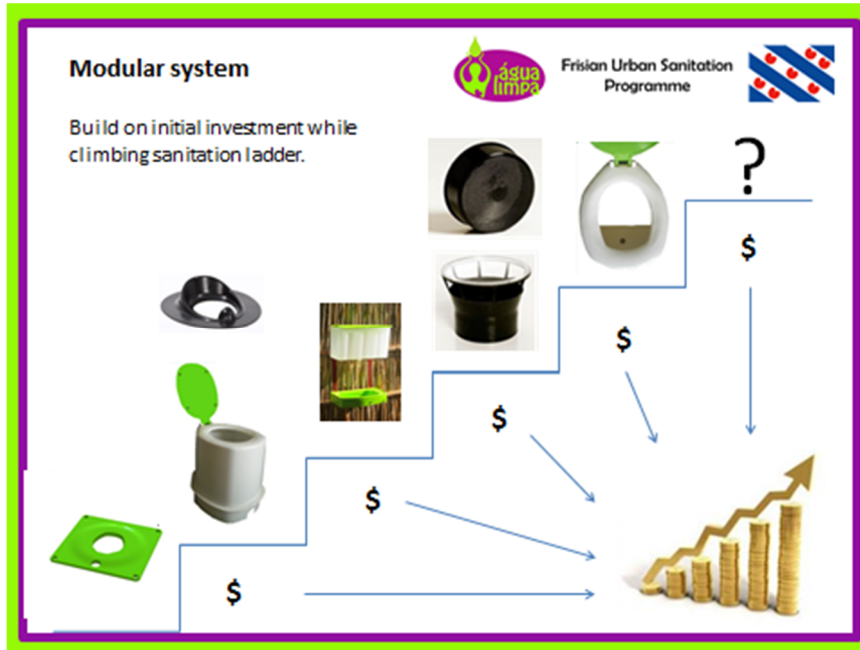
The system has been developed after extensive stakeholder consultations and in partnership with private sector partners.

The basic toilet module comprises: squatting to pan, pedestal, child seat, urine diversion component and vent pipe.

The basic hygiene module comprises: water reservoir and hand wash basin.

Additional modules such a solar driven led light, low cost septic tank and others are in the process of being incorporated to further strengthen the concept and make it environmental friendly.

The basic idea is that people can invest gradually in the individual modules of the XIPOTI concept without losing their initial investment when upgrading.



XIPOTI Investment Concept

The toilet and hygiene modules are made of lightweight recyclable virgin plastic and are kept in a modern and compelling design.

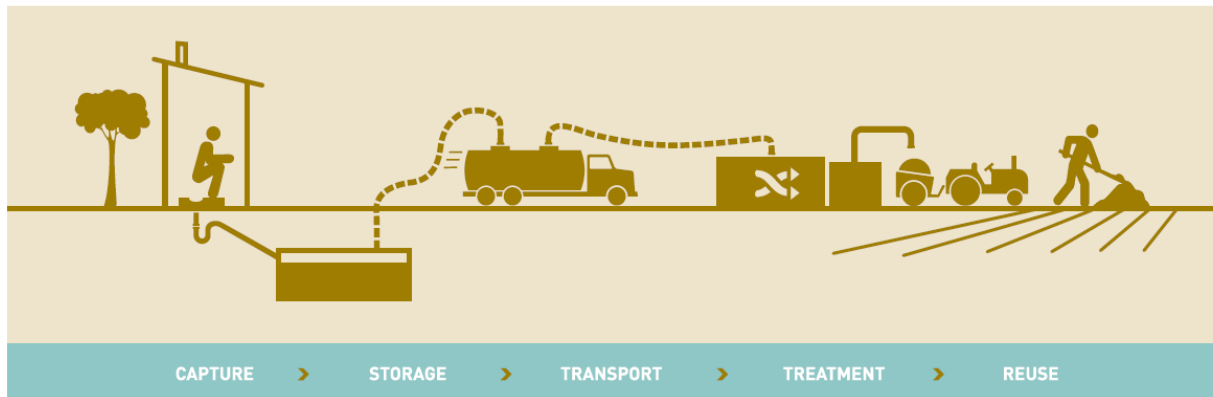


XIPOTI stackable squatting pan and pedestal

Waste Management for the Future

From a functional, economic, public health and environmental perspective, the XIPOTI has been designed with the intent of making it easier to address the whole sanitation value chain in a coherent and sustainable way.

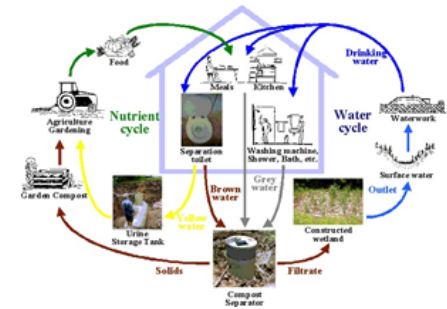
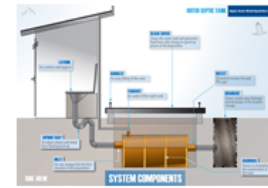
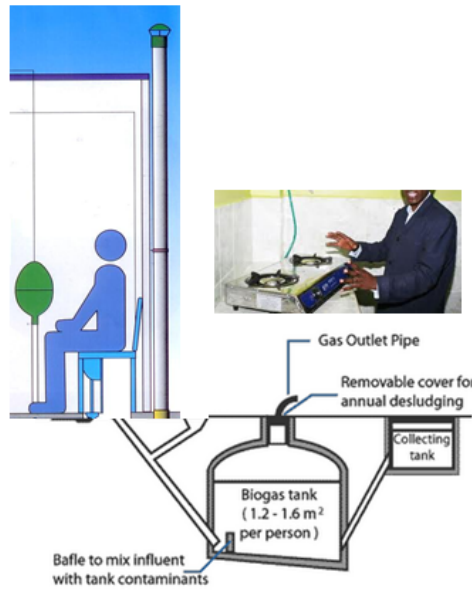
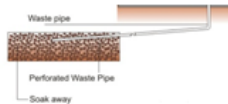
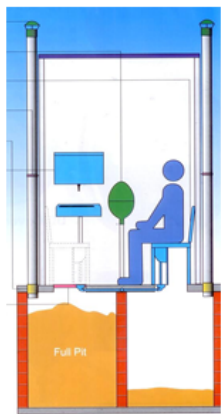
Sanitation Value Chain



Sanitation Value Chain, Bill and Melinda Gates Foundation, Water, Sanitation and Hygiene, Strategy Overview, 2011

The XIPOTI is primarily a waterless and hygienic toilet that does not require piped water or a sewer connection. However, it can be used as a pour flush toilet if desired.

The XIPOTI allows for a wide range of more or less ambitious strategies to waste management ranging from energy and resource recovery to more limited approaches of just containing the environmental impact of human waste on, for example, the aquifer..



Left: Closed Double Vault System with Urine Diversion, Maize Fertilized with Urine, Urine Soak-away
 Centre: Biogas Digester System, Cooking with Biogas
 Right: Low Cost Septic Tank, Liquid Waste Cycle

Superstructure

According to need, local available building materials and cost requirements different superstructures can be utilized with XIPOTI concept.



Superstructures build with locally available construction materials in Gaza province



Adoption of Innovations

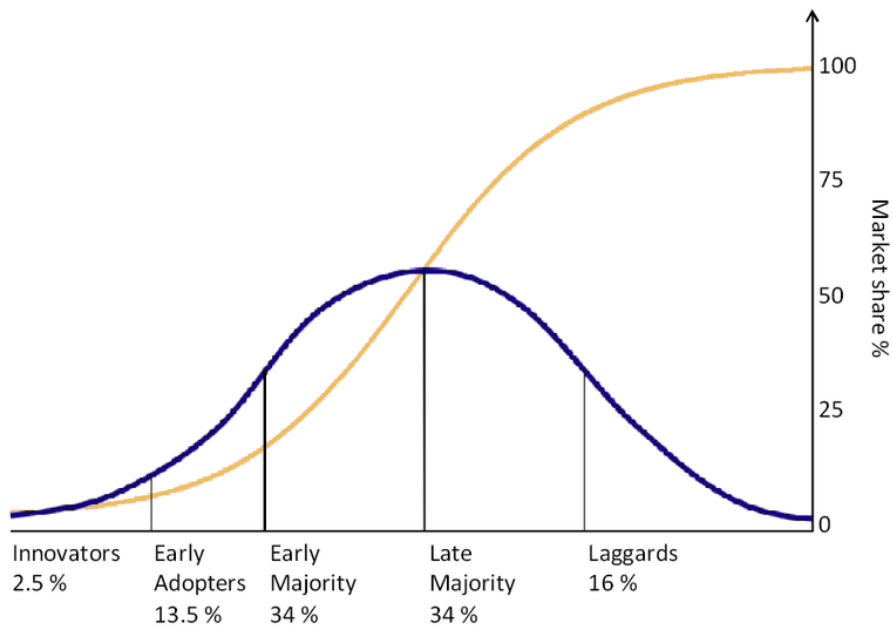
The main target group for most sanitation technology promotions is the poor and most marginalized which often practice open defecation or only use unimproved technologies found at the lowest step of the sanitation ladder. Often, at least in sub-Saharan Africa, the results do not meet the ambitions of such interventions, which can be witnessed from the lack of solid progress towards achieving the sanitation MDGs in the region.

Another issue is that the technologies that are offered do in many cases only meet some of the four basic variables necessary for creating a demand namely being, attractive, work well, affordable and available. Most technologies are designed by engineers, using as their main design parameters affordability and functionality. However, attractiveness and availability are often neglected in the process.

We believe that another customer segment than the poorest will be more effective change agents in adopting sanitation as a lifestyle and spark the long-awaited sanitation revolution in sub-Saharan Africa that was witnessed in the world's wealthy nations 200 years ago.

The young urban people in the age group 20-35 with a higher income, better education, and higher social status; that have a notion of the globalized world and aspire for a better future and living standards will be the main segment to collaborate with. They are more willing and can afford to accept a risk. They have a closer contact with scientific information sources and a higher use of impersonal sources of information, are more cosmopolites and exercise some opinion leadership. We believe they will be much more susceptible to the innovative message of sanitation as a new and modern lifestyle, than people with fewer financial resources that is more risk averse, and often display a more traditionalist view of the world while having a lower social status and exercising little opinion leadership.

According to Everett Rogers's theory of diffusion of innovations, five adopter categories can be classified within a social system according to their ease of adapting new technologies.



Source: Rogers, E. 1962

Diffusion of new habits and behavior is driven mostly by emulating others rather than mass media or interventions external to the community. What does the neighbor do, what does my boss do, and with the XIPOTI, what do the influential urban young do? Thus, if we can get the innovators and early adopters to embark on the sanitation as a lifestyle approach, their social status and opinion leadership will on the medium to long term the influence others to emulate their aspirations and in the end, it will trickle down to the most vulnerable groups.

They might not buy into the XIPOTI product, but the XIPOTUI brand and value will affect them, that will make them aspire for improving their sanitation situation by, for example, purchasing a cement squatting pan, that might not have the same qualities as a XIPOTI, but it will be regarded as a step on the way. Another scenario is that some will buy into the initial modules of the XCIPOTI, and with improved financial situation, change in spending priorities and saving pattern, will be able to afford to upgrade gradually.

Collaborators

We have to show that if people adopt the sanitation as a lifestyle concept of XIPOTI, it will cause a change. An important aspect of the work is to get close to the urban young and ask them to work together with us to solve the pressing issue of sanitation. If we can make them embark on reflecting and contribute on how to change we have won a huge battle. This marks a move from treating people as a target group to treating them as



collaborators. In this way, we are not advertising but working together with people. This would create a very strong brand relationship for the XIPO TI concept.

An example could be that by purchasing the XIPO TI we are asking people to engage in creating a safe and clean environment and drinking water for their children by not polluting the aquifer anymore.

The key is interaction; traditional marketing efforts have focus on one-way communication such as billboards and TV commercials. We need to connect to people, through face-to-face interactions. Thus, an important part of the marketing strategy is to create a platform or a way to interact with people on how they can improve their life through adopting the XIPO TI concept.

Another benefit of interacting with people/consumers is the feedback provided that can be used to improve further on the concept offered and on ways to reach other segments of the population that have not been reached effectively. The feedback is also important in order to nurse, develop and adopt the brand as it tends to decline over time.

The Marketing Mix

Price

Affordability is a main issue for the majority of the population in Mozambique and other sub-Saharan African countries. Thus, the pricing strategy has been to reach a price level of 4,000 Mt (117 Euro) for the toilet and hygiene package. This price level is considered low enough for the innovators and early adopters to purchase all the modules in one transaction while still being able to offer a differentiated product with a modern design that signals quality, prestige and dignity.

For the first buy in module of the concept, the squatting pan; the target is to market it at a price of 2000 Mt (59 Euro) where it can compete with more inferior quality products such as the cement squatting pan. The segment that would buy into the squatting pan is not the before mentioned first movers, but earlier majority and late majority. We will not be able to beat the cement pan on direct purchase price, but from a life-cycle cost perspective based on the durability and movability of the XIPO TI pan it is possible to compete.

Place

A major challenge in a large country with precarious transport infrastructure networks is to be able to keep your product available through distribution while not succumbing to the high transport costs. Traditional strategies have been to use local artisan to manufacture squatting pans locally from locally or easy available raw materials with different results of quality.



The high quality and superior design of the XIPOTI require a high-technology manufacturing process, thus making it impossible to be manufactured by local artisans. It is neither desirable to have local artisans nor local markets selling the XIPOTI as that would be a contradiction to the image of prestige we wish to connect to the XIPOTI brand. Thus, a distribution agreement has been signed with the leading hardware store chain in Mozambique - Construa, which has stores in most major towns in order to guarantee nationwide availability and the prestige necessary.

The XIPOTI brand is based on sustainability, thus the supply chain and input must also be sustainable, which mean striving towards using recyclable materials in the production and use production methods with a low-carbon foot print.

The suppliers of the individual modules of the XIPOTI supply Construa directly keeping the number of intermediaries to a minimum.

Another advantage is that qualified sales persons are available in Construa to explain how to set up the XIPOTI; building material is also available there, and a certain customer service level is guaranteed.

Promotion

A promotion campaign will be elaborated based on a promotion mix adhering to the before mentioned requirements to engaging with collaborates and reaching the identified segment. New innovative marketing approaches such as guerrilla (reliant on time, energy and imagination rather than a big budget), experimental (creating an experience that results in an emotional connection), grass root (reaching people on near personal level), social marketing (achieve a specific behavioural goal for a social good), and undercover marketing (part of guerrilla marketing where people do not know they are being marketed to) will be applied.



Greater responsibility, greater affection - The XIPOTI Fund

The manufacturers of the individual XIPOTI modules have committed as part of the XIPOTI brand of demonstrating social responsibility to transfer 2,5 % of their sales to a fund named the XIPOTI fund. The objective of the fund is to supply the most vulnerable groups with XIPOTIs where a supply driven approach is deemed an appropriate policy instrument and based on sound policy analysis and implementation. Furthermore, the fund is also envisaged to be used for research and development of new technologies that have the potential to attract the interest and purchasing power of the most vulnerable groups.

With Support from the

XIPOTI

Fund