Quick Guide to Using the Sanitation Possibilities Map

A guide to using the Sanitation Possibilities Map for increased innovation and user-centered sustainable solutions in water, sanitation, and hygiene (WASH)-related activities.

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USAID FROM THE AMERICAN PEOPLE

PRO-WASH
Practices, Research and Operations
in Water, Sanitation and Hygiene
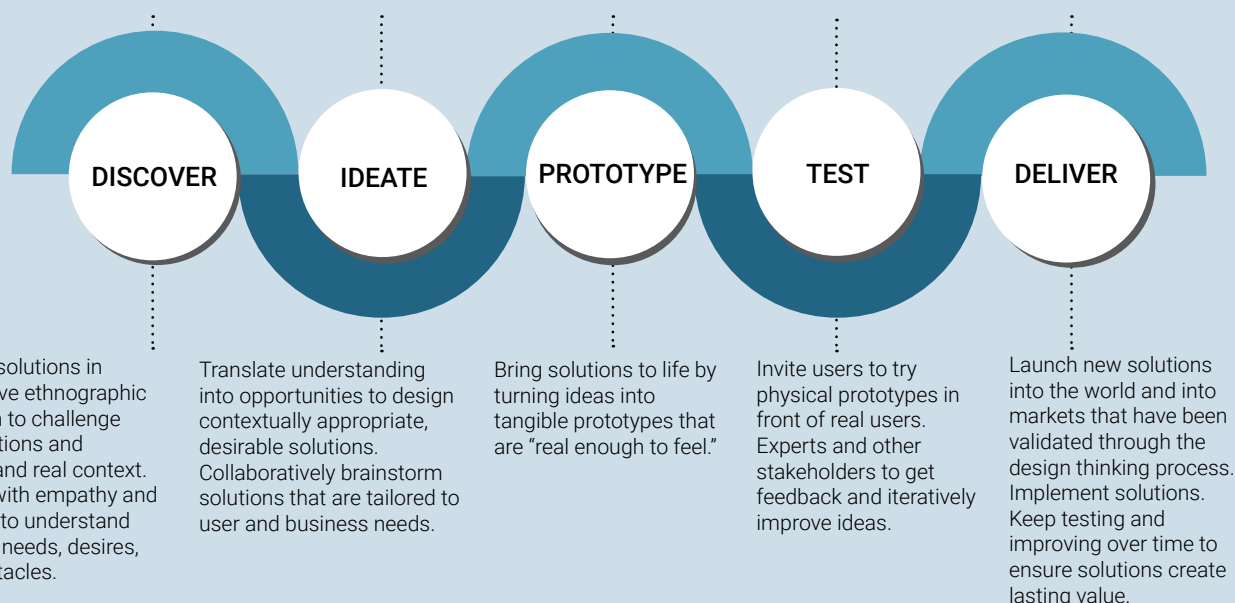
iDE

1. Introduction

The Sanitation Possibilities Map (SPM) was created to help brainstorm solutions to a wide range of sanitation challenges. This easy-to-use tool is a way for water, sanitation and hygiene (WASH) practitioners to start using human-centered design (HCD). HCD involves several steps (Figure 1) and includes designing with empathy and working alongside people in their environments.

PRO-WASH and iDE developed this adaptable tool that can be used anytime during the project cycle. It can open your mind to innovation and help you develop more user-centered sustainable solutions.

This includes approaching challenges with a broader perspective than "users" and "products." HCD includes designing around people's needs and developing solutions to complex challenges. Using HCD, we can dig deep to understand the "whys" behind behaviors and decisions and seek to understand attitudes, beliefs, and motivations that influence social, systemic, and behavioral dynamics.

We can then use utilize insights uncovered in the research to inform the design and prototyping of products, services, businesses, or other outputs depending on the needs of the people we are designing with.

Figure 1. Human-Centered Design
Human-Centered Design includes several steps:

DISCOVER — Ground solutions in immersive ethnographic research to challenge assumptions and understand real context. Design with empathy and humility to understand people's needs, desires, and obstacles.

IDEATE — Translate understanding into opportunities to design contextually appropriate, desirable solutions. Collaboratively brainstorm solutions that are tailored to user and business needs.

PROTOTYPE — Bring solutions to life by turning ideas into tangible prototypes that are "real enough to feel."

TEST — Invite users to try physical prototypes in front of real users. Experts and other stakeholders to get feedback and iteratively improve ideas.

DELIVER — Launch new solutions into the world and into markets that have been validated through the design thinking process. Implement solutions. Keep testing and improving over time to ensure solutions create lasting value.

In this quick guide, we will introduce the SPM, provide examples of when you might use this tool, and take you through a step-by-step approach to using the tool. This guide also includes a blank template for you to use in your own work. The guide is based off the experiences of learners from all over the globe that took part in an iDE and PRO-WASH-led SPM learning journey in 2020.

As stated by one participant during the learning journey, "I found it very interesting. It actually changed my mindset to focus on the possibilities rather than the problem."

2. What is the Sanitation Possibilities Map?

The SPM is a tool that helps you look at the entire customer journey to help brainstorm their full experience, from hearing about why sanitation is important, to using products and services you are promoting. The SPM moves the focus away from problems and barriers to focus on brainstorming possibilities and opportunities. With the SPM, you use your user data, their experiences, what might be possible for them, and focus possibilities around the users to uncover new ideas for intervention. This tool can be used at any stage of your design journey or project cycle. It can be used at any stage of the WASH value chains.

The SPM starts with creating "personas" or fictional characters based on real findings. Personas are tools to help us define who our users are. They describe typical users of a product or system in order to understand their needs, behaviors, motivations, and concerns.

MEET IDRIS *"I'm looking to expand."*

Idris lives in Burkina Faso and is married with three kids. He has a thriving business which supplies parts to toilet business owners and others working in construction. His family has owned an improved toilet since 2016. For the last few years, Idris has been able to grow his business. And he sees a lot of opportunities because there is a newly paved road, and the new village chief is promoting toilet purchases. He is also aware of new money coming in from international donors for sanitation businesses. Idris is really open to new ideas for expanding his business. COVID-19 continues to be a problem for the community, and people are slowly becoming food insecure. The security situation where he lives is tense and people are leaving because of this and the climate related droughts. For his business, Idris has problems every day with cash flow because people do not pay on time. Supply chain interruptions and general community insecurity are also problems. He struggles with customer outreach and finding quality labor. He needs high quality training for labor, good transportation options, and a loan for growth. Idris is afraid he is getting older and unable to do hard labor things himself. He thinks about government instability and this worries him too.

Why use personas?

A persona will always remind you to create something within a person's needs, motivations, personalities, etc.

Personas are based on your field research.

## MEET VRINDA *"My family is growing so I need to sell!"*

Vrinda is a toilet sales agent for a sanitation program in the hills of Nepal. Vrinda has seen the positive affects of improved toilets in her own rural community and COVID-19 has highlighted the importance of good hygiene practices. Vrinda was just promoted within the organization and she has been working with a sales coach. Since she is expecting a baby Vrinda hopes that she can continue to work hard, sell more toilets, and even get another promotion. She is the only female sales agent on the team because all of the other women left. Life is hard in her community, people struggle with food and there is harsh weather almost year round. A new road was supposed to be built but they are still waiting. It is very difficult for Vrinda to get around to households because she has to walk and living in a hill community, this is so hard because she is pregnant. She needs new sales materials because hers are old, faded, and damaged from the monsoon rains. Vrinda is afraid of what will happen when she has her child. Will she still be able to work? How will she manage to care for her child? She has tried to talk to her supervisor about this but she is shy and he is a man.

3. When and why might you use the SPM?

You can use the SPM throughout the entire project cycle to brainstorm and plan for possibilities that help balance the need for scale and the need to innovate. A wide range of people can use the SPM, including program implementers, project designers, sanitation enterprises/business owners, donors, and policymakers. You can use the SPM to address the challenges of delivering multiple interventions at once. This will help you address challenges you face in the WASH sector.

Figure 2. Program Cycle
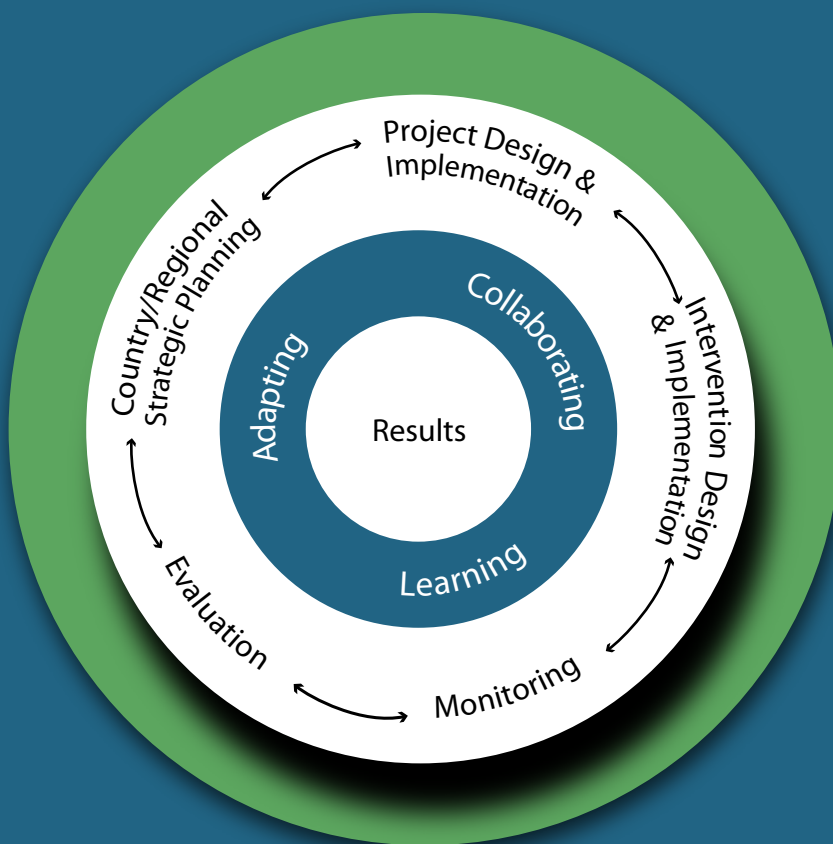
Adapted from USAID

Project Design and Implementation

The SPM can help to generate new and innovative ideas to overcome challenges. It cultivates a culture of openness to think outside the box.

Example: Embed the SPM into assessments to better understand the users' context and to capture different perspectives. The SPM helps to ensure a deep understanding and recognizes that different personas or users have different needs, desires, and barriers to engaging with the sanitation product or service.

Intervention Design and Implementation

Use this approach to unlock problems and to see and leverage opportunities and possibilities.

Example: During implementation, use this SPM to explore possibilities to help brainstorm ideas to improve sales of latrine slabs or possibilities around private sector engagement.

Monitoring or Evaluation

The SPM can be built into your monitoring tools or can be used as part of an after action review.
Example: Use the SPM to explore possibilities during monitoring for improving sanitation activities in real time. Use the tool to brainstorm opportunities on how to make market interventions more sustainable.
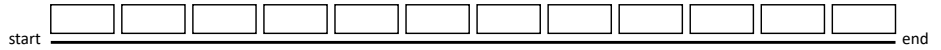
4. Step-by-Step Guide on Using the SPM

In this section we will take you through the six steps to use the SPM. You can use paper or virtual platforms such as MURAL, Miro, or Google docs for this activity. Here is a blank template you can adapt and use.
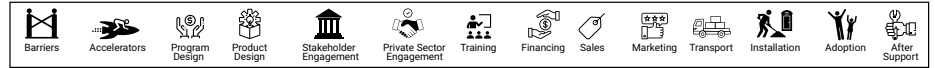
Step 1

With your team, think about your intervention (project, product, or service), and list the full range of activities you think are necessary for your intervention to be successful. This is a key step to ensure you are considering the full range of activities to design. Plot the activities along the example value chain. Example 1 is more relevant when thinking through possibilities for a wide range of WASH issues during any step of program design. Example 2 is more relevant if focused on the sanitation value chain.

Value Chain

start _____ end

Example 1: Value Chain Filled Out

Barriers | Accelerators | Program Design | Product Design | Stakeholder Engagement | Private Sector Engagement | Training | Financing | Sales | Marketing | Transport | Installation | Adoption | After Support

Example 2: The Sanitation Chain
Adapted from Bill and Melinda Gates Foundation (BMGF)

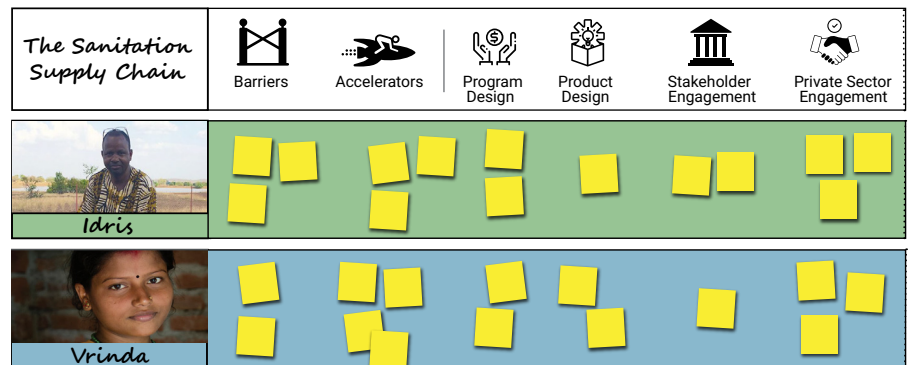CAPTURE → CONTAINMENT → EMPTYING → TRANSPORT → TREATMENT → SAFE REUSE OR DISPOSAL
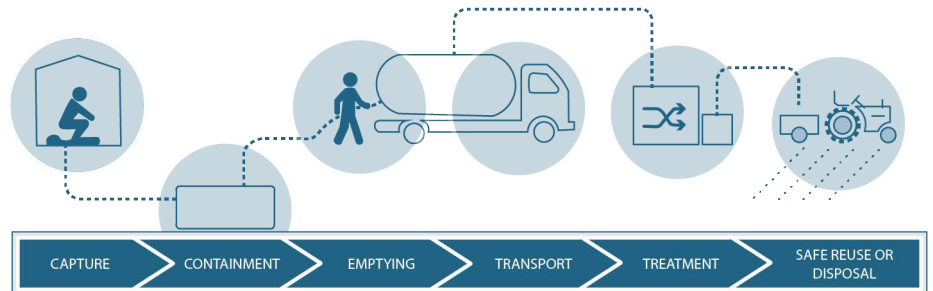
Step 2

Decide who the actors are along this value chain and create a persona for EACH segment based on collected data and understanding of lived experience. For example, you may want to consider sanitation users, entrepreneurs, and sales agents. Annex 1 provides an example of a filled out persona canvas. Use the canvas template in Annex 2 for your personas. This activity is best undertaken with a wide range of stakeholder and staff members.

Name

Portrait
Please add a picture or draw a portrait.

Quote
What is a typical quote that represents the persona's objectives, motivations?

Segment

Occupation

Age

Home Town

Marital status

Family/Friends

Interests/Hobbies

Short bio

Motivations
What drives this persona?

Goals
What are the goals that this persona tries to achieve?

Frustrations
What frustrates this persona?

Enablers
What enables this persona to achieve his/her goals?

Barriers
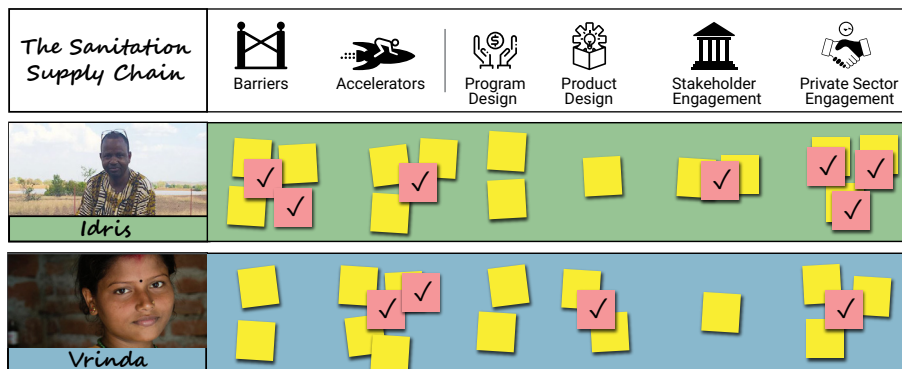What obstructs this persona from achieving his/her objectives?

Step 3

Time for possibilities! Now you are able to begin brainstorming your possibilities. Use lots of sticky notes and don't limit yourself. Any possibility you can dream of can be added here. Using the decided value chain activities on the X axis and the personas on the Y axis, move through each persona and brainstorm possibilities for that persona at each activity.

The Sanitation Supply Chain | Barriers | Accelerators | Program Design | Product Design | Stakeholder Engagement | Private Sector Engagement

Idris

Vrinda

Step 4

Vote! Depending on the quantity of possibilities you have, you will give team members the opportunity to vote for their top 3-5 options. If you are doing this on paper, you might want to use markers or stickers to show which options are the most liked. If you are using a virtual platform such as MURAL, Miro, or Google docs, you can have people vote by using + signs or other icons. This round of voting should focus only on what is liked by you/ participants.

| The Sanitation Supply Chain | Barriers | Accelerators | Program Design | Product Design | Stakeholder Engagement | Private Sector Engagement |

Step 5

The winning possibilities. Those with the most votes move forward to an analysis of "is this desirable, feasible, viable, and transformational?" (Annex 3) Use a (✓) check or (-) minus for each lens. If an idea does not satisfy all four, then it cannot move on.

Desirability: What's the unique value proposition? Do people want this product or service? Does it make sense for them?

Feasibility: Does this work? Is it functionally possible in the foreseeable future?

Viability: Can we build a sustainable business? What has to be true for this business to work? What are the costs? How will you pay for it?

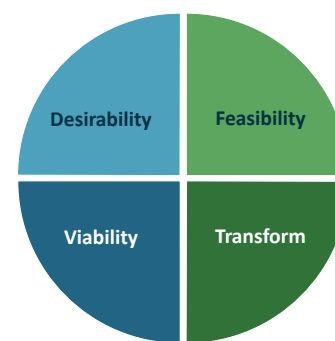**Transformative:** Does it have potential to create market system transformation?

Idea: _____

Idea: _____

Idea: _____

Idea: _____

Step 6

The HOW.

Fill out a SCHEMES canvas (Annex 4) for each of your final ideas. These can be further refined in a co-creation session with your stakeholders, or used to test/pilot ideas.

✓ **Space:** When, where, and how will this idea take place?

✓ **Cash:** What financial resources are needed to make this solution a reality?

✓ **Helpers/People:** Who will implement this?
Is support needed from stakeholders to make this happen?
How will government, local leaders, and other partners be engaged?

✓ **Equipment:** What equipment does this solution need (e.g., cell phones, trucks)?

✓ **Materials:** What material does this solution require and how will these be produced/acquired (e.g., banners, handouts, cement)?

✓ **Expertise:** What experts are needed to implement this solution effectively (e.g., marketing firm, digital dashboard designer)?

✓ **Systems:** What systems are needed to be used or built to carry out this solution and who will support this (e.g., sales agents)?

About PRO-WASH and iDE

Practices, Research, and Operations in Water, Sanitation, and Hygiene is an initiative funded by USAID's Bureau for Humanitarian Assistance (BHA) and led by Save the Children. PRO-WASH aims to provide support to implementing partners in order to strengthen the quality of WASH interventions through capacity strengthening, knowledge sharing and applied WASH research opportunities.

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https://www.fsnnetwork.org/PRO-WASH

International Development Enterprises (iDE), a global leader in applying human-centered design and market-based solutions to tough challenges in global development.

wash@ideglobal.org
https://www.ideglobal.org

REFERENCES:

iDE & PRO-WASH (2020). iDE & PRO-WASH Learning Journey Using Human-Centered Design Tools for WASH. https://www.fsnnetwork.org/resource/pro-wash-ide-learning-journey

Sahay, A. (2017, January 2). Ushering a new era in sanitation value chain management in India. IRC. https://www.ircwash.org/blog/ushering-new-era-sanitation-value-chain-management-rajasthan
Based on Bill and Melinda Gates Foundation.
https://docs.gatesfoundation.org/documents/water-sanitation-hygiene-fact-sheet-2010.pdf

USAID Learning Lab. (2021, April 13). Program cycle overview page. https://usaidlearninglab.org/program-cycle-overview-page

PHOTO/GRAPHIC CREDITS:
- Frontpage image: iDE
- The Program Cycle: Adapted from USAID
- The Sanitation Chain: Adapted from Bill and Melinda Gates Foundation (BMGF)

Annex 1

Name: Idris

Portrait

Segment: Entrepreneur

Occupation: Business Owner

Age: 42

Home town: Idal, Burkina Faso

Marital status: Married

Family/Friends: 3 kids

Interests/Hobbies: Football, visiting family and friends, listening to the radio

Short bio: Idris has a thriving business which supplies parts to toilet business owners and others working in construction. His family has had an improved latrine since 2016.

Quote
What is a typical quote that represents the persona's objectives, motivations?

"I'm Looking to expand"

Motivations
What drives this persona?

Motivated by the idea of growing his business. Wants to make sure that he has enough money for his family. Interested in having a business that his kids can run when they grow up.

Goals
What are the goals that this persona tries to achieve?

He needs high quality training for labor, good transportation options, and a loan for growth. Idris is afraid he is getting older and unable to do hard labor things himself.

Frustrations
What frustrates this persona?

Government instability worries him. Hard to find good quality and reliable labor. Struggles with customer outreach. Procurement delays and supply chaing interruptions.

Enablers
What enables this persona to achieve his/her goals?

There is a newly paved road.

The new village chief is promoting toilet purchases.

New money coming in from international donors for sanitation businesses.

Openness to new ideas for expanding his business.

Barriers
What obstructs this persona from achieving his/her objectives?

COVID-19 continues to be a problem for the community and people have limited cash.

The security situation is tense. Some people are moving to the city because of the insecurity and the climate-related droughts.

Problems every day with cash flow because people do not pay on time.

Annex 2

Name

Portrait
Please add a picture or draw a portrait.

Segment

Occupation

Age

Home town

Marital status

Family/Friends

Interests/Hobbies

Short bio

Quote
What is a typical quote that represents the persona's objectives, motivations?

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Annex 3

The winning possibilities. Those with the most votes move forward to a HCD analysis of "is this desirable, feasible, viable, and transformational?" You can type each possibility in the idea line below.

Use a (✓) check or (-) minus for each lens. If an idea does not satisfy all four, then it cannot move on.

Desirability:
• What's the unique value proposition?
• Do people want this product or service?
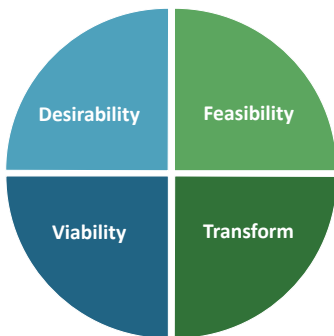• Does it make sense for them?

Feasibility:
• Does this work?
• Is it functionally possible in the foreseeable future?

Viability:
• Can we build a sustainable business?
• What has to be true for this business to work?
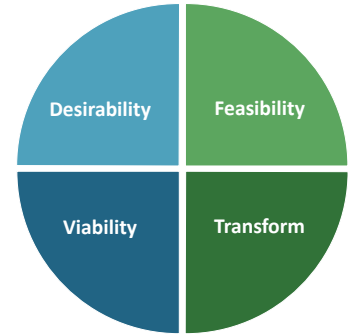• What are the costs?
• How will you pay for it?

Transformative:
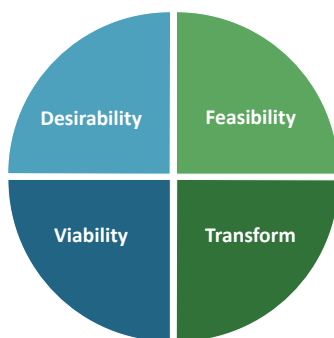• Does it have potential to create market system transformation?

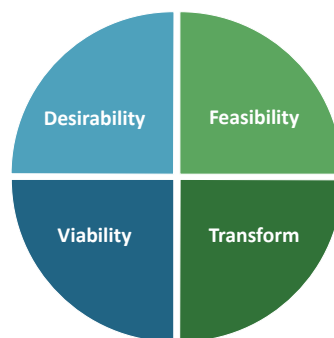| Desirability	Feasibility
Viability	Transform

Idea: _____

Desirability	Feasibility
Viability	Transform

Idea: _____

Desirability	Feasibility
Viability	Transform

Idea: _____

Desirability	Feasibility
Viability	Transform

Idea: _____

Desirability	Feasibility
Viability	Transform

Idea: _____

Desirability	Feasibility
Viability	Transform
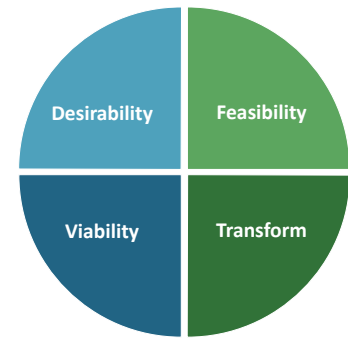
Idea: _____

Annex 4

The HOW. Fill out a SCHEMES canvas for each of your ideas.

Space: When, where, and how will this idea take place?
Cash: What financial resources are needed to make this solution a reality?
Helpers/People: Who will implement this? Is support needed from stakeholders to make this happen? How will government, local leaders, and other partners be engaged?
Equipment: What equipment does this solution need (e.g., cell phones, trucks)?
Materials: What material does this solution require and how will these be produced/acquired (e.g., banners, handouts, cement)?
Expertise: What experts are needed to implement this solution effectively (e.g., marketing firm, digital dashboard designer)?
Systems: What systems are needed to be used or built to carry out this solution and who will support this (e.g., sales agents)?

Space:

Cash:

Helpers/People:

Equipment:

Materials:

Expertise:

Systems: