



frog

Unlocking the Rural Market with User Centered Design

MOBILE 360 AFRICA - OCTOBER 2015

mAgri
SRI LANKA

mAgri PROGRAM

DIALOG + GSMA

Lilian

LILIAN
frog

ALVARO
frog

HIROSHAN
local guide

NEWS
LOCAL

1 YEAR

6 COUNTRIES

GHANA, MALAWI, SRI LANKA, BANGLADESH, MYANMAR, PAKISTAN

Most farmers are skeptical about
advice; and successful farmers strongly
believe they are better equipped to
exercise their own decisions

INSIGHTS
Farmers lack negotiation
power so having the market
price doesn't guarantee that
they will get it.

Farmers use their mobile phones
local networks to get price
information from many disconnected
sources that are not necessarily
reliable, accurate or local.

mAgri
GHANA

VODAFONE + GSMA

Kara

KARA
frog

SIMONE
frog

DELA
UX expert

DIANA
UX expert

ARCHETYPES



(A1) TRAPPED

(A2) ESCAPIST

(A3) ACCEPTOR

(A4) COMPETENT OPTIMIST

MOBILE 360 AFRICA - OCTOBER 2015

INCEPTION

PRODUCT
DEVELOPMENT

TOOLS

TIMELINE

INCEPTION

PRODUCT
DEVELOPMENT

LAUNCH
SUPPORT

INSIGHTS

A woman wearing a vibrant blue and yellow headscarf with a black floral ornament is talking on a mobile phone. She is dressed in a red and white striped shirt under a bright orange patterned cardigan. She holds a bunch of green leafy vegetables. The background shows a lush green rural landscape with rolling hills and trees.

BACKGROUND

DOES SHE

THINK

THE SAME WAY

WE THINK?

BACKGROUND

**WHAT
SERVICES
DOES HE
TRUST?**



Only 25% of registered
farmers on Mobile
Agriculture product **use the
service more than once**

**USER CENTERED DESIGN
FOR MOBILE AGRICULTURE**

**USER-CENTERED DESIGN CAN ADD
VALUE WHEN DEVELOPING
PRODUCTS FOR YOUR CUSTOMERS,
ESPECIALLY HARD TO REACH ONES.**

—
like farmers

USER-CENTERED WHAT?



It is **NOT** going into a farm
for a day of **focus groups**
with farmers

It is **NOT** just marketing and
product department's
responsibility

USER-CENTERED DESIGN
IS AN INNOVATION PROCESS
IN WHICH **END-USER NEEDS, ASPIRATIONS,**
AND CONTEXT ARE GIVEN EXTENSIVE
ATTENTION AT EACH STAGE
OF THE PRODUCT DEVELOPMENT PROCESS.



WE KNOW THAT INVESTMENT IN DESIGN BRINGS RESULTS

“Over the last 10 years, design-led companies have maintained significant stock market advantage, outperforming the S&P by an extraordinary

228%

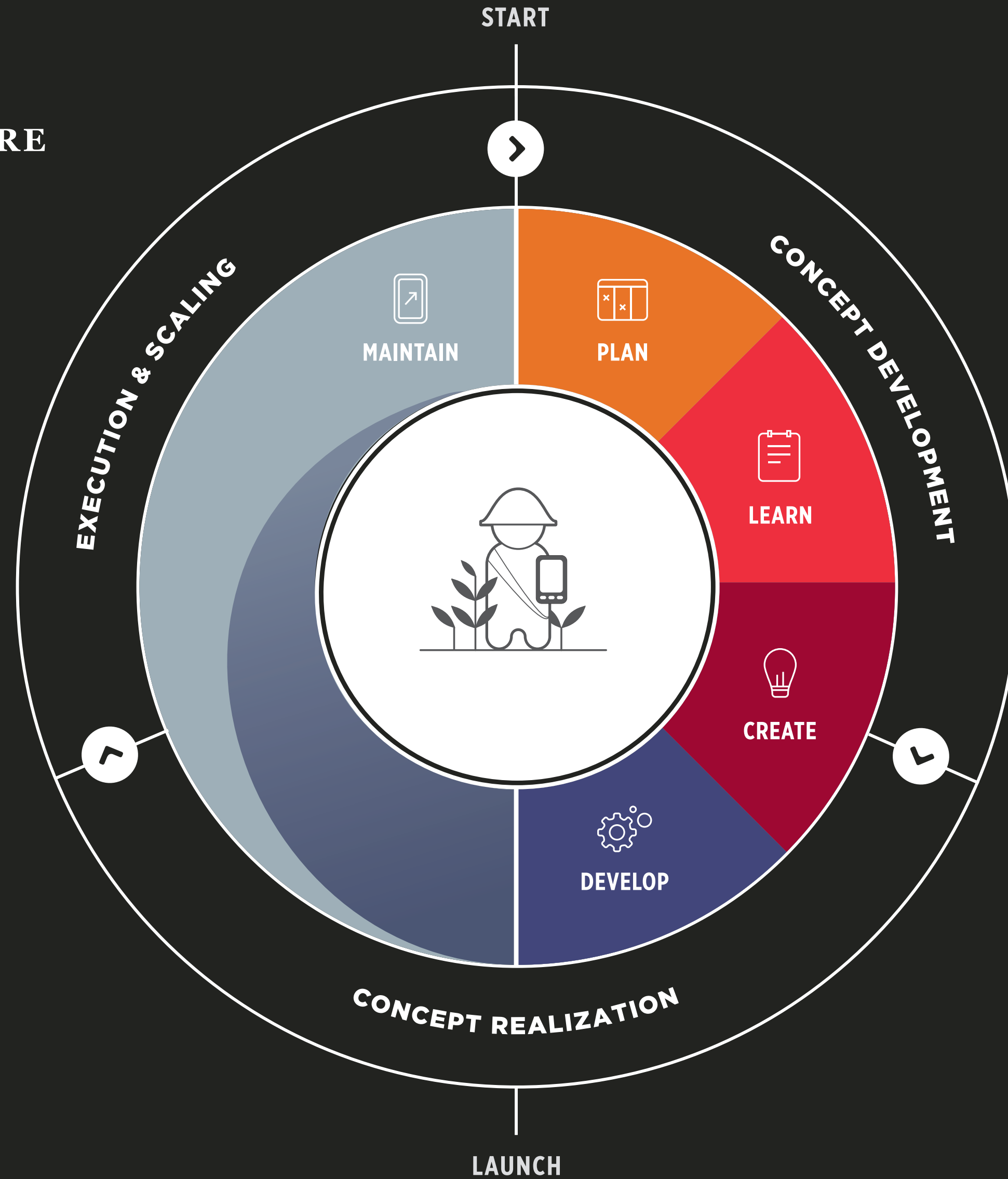
Source: The Design Management Institute and Motiv Strategies

Based on comparison of the S&P with a 'Design Index' portfolio of 15 companies that invest heavily in design, including Apple, Intuit, Starbucks and Walt Disney

SOUNDS COMPLEX?

IT'S NOT HARD TO START

USER CENTERED DESIGN FOR MOBILE AGRICULTURE



Phases

Objectives



PLAN

To apply a user-centered process, you need to first align on team setup, existing knowledge, and assumptions. Discuss the overall goal for your mAgri service and how to set up user research to ensure that farmers' voices and their ecosystem are integrated into the mAgri service.



LEARN

To create meaningful products, you need to be closer to user, market, and context of use. This understanding starts with going out in the field, asking the right questions, and testing hypotheses with farmers to guide you throughout the design process.



CREATE

To develop a mAgri concept that is deeply rooted in insights captured in the field, you need to analyze the information collected, and identify the right opportunities for your mAgri service, considering all the diverse voices of the farmers and their ecosystem.



DEVELOP

To shift from concept to realization, you need to prioritize features and plan how to create value, deliver, and capture it over time. While the product starts to take shape, organize additional validation sessions with the user to make sure you are going in the right direction.



MAINTAIN

The launch is only the beginning of the journey, not the goal. When the product launches, you need to continuously gather feedback from farmers and the ecosystem to refine and improve the product, looking at all the aspects that shape the final user experience.

Tools

PREPARATION

ACTIVITIES

OUTCOMES



ORGANIZATION READINESS
TEAM SETUP
COLLABORATION TOOLS



SUCCESS CRITERIA
MISSION COUNTDOWN
HYPOTHESIS GENERATION
ECOSYSTEM MAPPING



RECRUITING CRITERIA
RESEARCH PLAN



DISCUSSION GUIDE
NOTE-TAKING TEMPLATE



IN-DEPTH INTERVIEW
FARMING LIFE CYCLE
TRUST CIRCLE
HOUSE-FARM TOUR
INTERCEPT INTERVIEW



RESEARCH INSIGHTS
REFINED HYPOTHESES



USER ARCHETYPES
LIFE CYCLE MAPPING



IDEATION EXERCISES
CUSTOMER JOURNEY



VALUE PROPOSITION
SERVICE BLUEPRINT
MINIMUM VIABLE PRODUCT
ADVOCATE & SKEPTICS MAP
BUSINESS MODEL



USER VALIDATION PLAN



CARD SORTING
LOW-FIDELITY PROTOTYPES



CONTENT CONSIDERATIONS
AGENT TRAINING
GO-TO-MARKET STRATEGY



MONITORING PLAN



CUSTOMER JOURNEY ISSUES



PRODUCT ITERATIVE PLANNING

PLAN

ALIGN ON THE OVERALL GOAL FOR YOUR mAgri SERVICE AND SET UP THE USER RESEARCH TO ENSURE FARMERS' VOICES AND THEIR ECOSYSTEM ARE INTEGRATED INTO THE mAgri SERVICE. REMEMBER TO CHECK BACK OFTEN ON THE GOAL AND RESEARCH, AS YOU CAN KEEP ITERATING ON THESE WHEN YOU LEARN MORE ABOUT WHAT FARMERS WANT AND NEED.

- PREPARATION**
 - Define the overall goal for your mAgri service
 - Identify the user research activities that will help you achieve that goal
 - Identify the resources you need to conduct the research
- ACTIVITIES**
 - Conduct user research activities
 - Iterate on the research plan as you learn more about what farmers want and need
- OUTCOMES**
 - A clear understanding of the overall goal for your mAgri service
 - A user research plan that is aligned with that goal
 - The resources needed to conduct the research



PLAN

PREPARATION

Make sure you have the right resources in place

ORGANIZATION READINESS

TEAM SETUP

COLLABORATION TOOLS

Organization Readiness

Are your internal design and development teams ready to support your mAgri service? It's important to assess your organization's ability to deliver the mAgri service and identify what you need to get ready to launch. Consider the people, processes, and technology that will be needed to build and launch the mAgri service.

MAKE SURE THE RIGHT SETUP AND RESOURCES ARE IN PLACE BY ASSESSING THE INTERNAL ENABLERS AND BLOCKERS BEFORE STARTING THE PROCESS.

- TIME**
- MATERIALS**
- COMPLEXITY**
- PARTICIPANTS**

SMALLER BUSINESS

ORGANIZE A MEETING

IDENTIFY THE INTERNAL CHALLENGES & BLOCKERS

THINK OF ACTIONS THAT CAN IMPROVE READINESS

KNOWLEGE LEVEL: DO YOU KNOW ENOUGH?

Team Setup

Get the most out of following a user-centered design approach. The team you assemble is critical to the success of your mAgri service. Consider the people, processes, and technology that will be needed to build and launch the mAgri service.

UNDERSTAND WHAT THE TEAM MEMBERS' SKILLS AND MOTIVATIONS ARE AND IDENTIFY ANY GAPS IN EXPERTISE

- TIME**
- MATERIALS**
- COMPLEXITY**
- PARTICIPANTS**

BY PERSONALITY

BY GOALS

BY SKILLS

REFLECT ON YOUR PERSONAL GOALS AND MOTIVATIONS

SHARE WITH THE TEAM

IDENTIFY EXPERTISE AND GAPS

KEEP YOUR TEAM WORKING ON THE GOAL

Stories from the field

Team Setup

Sri Lanka
GOMA + Design

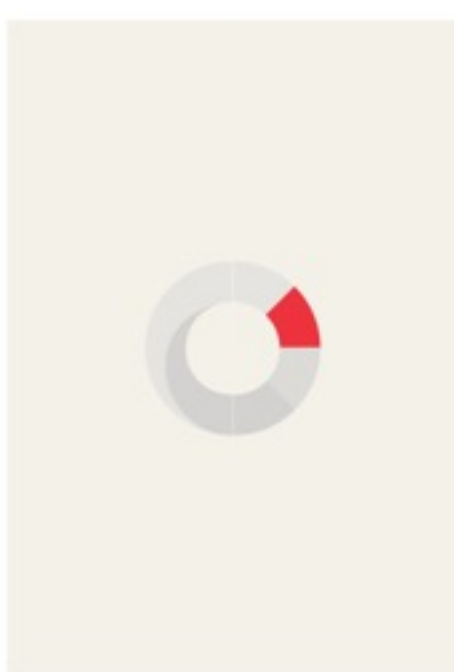
It is important to engage all the functions in research, so that everyone on the team understands the needs of farmers.

BUSINESS READINESS CHECKLISTS

Area	Checklist Item	Checklist Item	Checklist Item
Business Model	Define the business model	Identify the revenue streams	Identify the cost structure
Market	Identify the target market	Identify the market size	Identify the market growth
Competition	Identify the competitors	Identify the competitive advantage	Identify the competitive strategy
Partners	Identify the partners	Identify the partner roles	Identify the partner value
Legal	Identify the legal requirements	Identify the legal risks	Identify the legal strategy
Financial	Identify the financial requirements	Identify the financial risks	Identify the financial strategy
Operational	Identify the operational requirements	Identify the operational risks	Identify the operational strategy

FARMER-IMPACT MEASUREMENT CHECKLISTS

Area	Checklist Item	Checklist Item	Checklist Item
Impact	Identify the impact areas	Identify the impact metrics	Identify the impact measurement methods
Measurement	Identify the measurement methods	Identify the measurement frequency	Identify the measurement responsibility
Reporting	Identify the reporting methods	Identify the reporting frequency	Identify the reporting responsibility
Review	Identify the review methods	Identify the review frequency	Identify the review responsibility



LEARN

TO CREATE SOMETHING MEANINGFUL, YOU NEED TO BE CLOSER TO THE USER AND TO THE MARKET AND CONTEXTS OF USE. THIS UNDERSTANDING STARTS WITH GOING OUT IN THE FIELD, ASKING THE RIGHT QUESTIONS, AND TESTING HYPOTHESES WITH FARMERS TO GUIDE YOU THROUGHOUT THE DESIGN PROCESS.

- PREPARATION**
- ACTIVITIES**
- OUTCOMES**



LEARN

ACTIVITIES

Methods and tools that can help you run the research

- IN-DEPTH INTERVIEW
- FARMING LIFE-CYCLE
- TRUST CIRCLE
- HOUSE-FARM TOUR
- INTERCEPT INTERVIEWS

In-depth Interview

Developing a deep understanding of farmers' critical pain points is the first step in designing a mAgri service that meets the real needs of the target user.

HAVE FOCUSED ONE-TO-ONE CONVERSATIONS WITH SELECTED PARTICIPANTS TO DIG DEEP INTO THEIR HABITS, NEEDS, MOTIVATIONS, AND BEHAVIORS.

- TIME**
- MATERIALS**
- COMPLEXITY**
- ROLES**

INTRODUCE YOURSELF AND THE TEAM

Establishing a rapport and trust is essential for a successful interview. Take time to introduce yourself and your team, and to build a rapport with the participant.

APPROACH THE INTERVIEW WITH STRUCTURE

ASK WHY

FOCUS ON THE GOAL

Farming Life Cycle

BUILD AN UNDERSTANDING OF THE WHOLE FARMING LIFE CYCLE TO IDENTIFY PAIN POINTS AND OPPORTUNITIES THAT CAN BE USED IN THE PRODUCT DESIGN.

- TIME**
- MATERIALS**
- COMPLEXITY**
- ROLES**

Trust Circle

UNDERSTAND WHO FARMERS TRUST FOR INFORMATION; THESE INSIGHTS ARE A FOUNDATION FOR THE mAgri PRODUCT AND MARKETING AND DISTRIBUTION PLANS LATER.

- TIME**
- MATERIALS**
- COMPLEXITY**
- ROLES**

TRUST CIRCLE

BUILD YOUR TRUST CIRCLE

SHOW THE WHOISHEET AND CARDS TO THE PARTICIPANT

MAP THE PLAYERS ON THE CIRCLES

ASK WHY

Stories from the field

Trust Circle

Sri Lanka
GOMA + Design

How to design a service that leverages existing trust circles.

TRUST CIRCLE

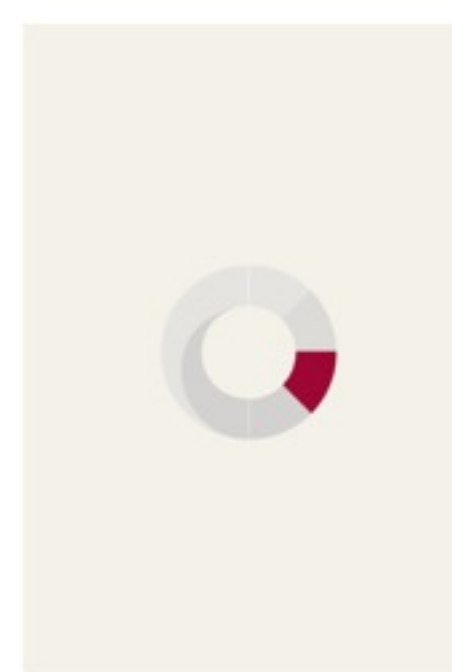
We learned many surprising things about who farmers actually trust for farm information.

Based on these trust dynamics, we designed the mAgri service that incorporates these findings. We wanted each farmer to feel the mAgri service is customized for him or her, not just another generic mAgri service.



TRUST CIRCLE

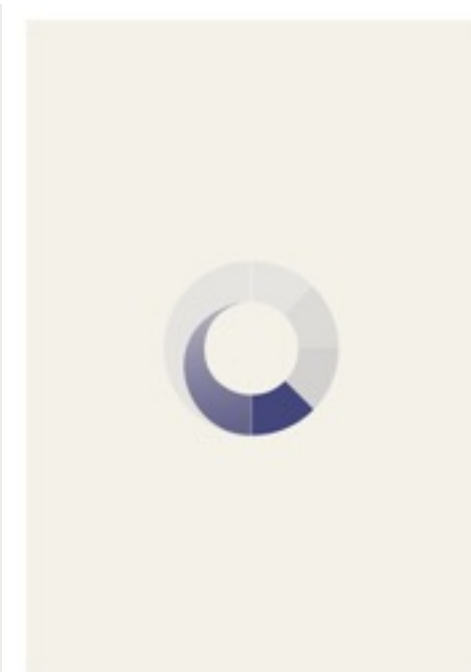
How to design a service that leverages existing trust circles.



CREATE

ARE YOU CREATING AN mAgri SERVICE THAT IS DEEPLY ROOTED IN INSIGHTS FROM THE FIELD? CREATE IS ABOUT IDENTIFYING THE RIGHT OPPORTUNITIES AND FIGURING OUT HOW THEY AFFECT YOUR mAgri SERVICE. IT'S CRITICAL THAT THE CREATE PROCESS TAKES INTO ACCOUNT THE DIVERSE VOICES OF THE FARMERS AND THEIR ECOSYSTEM.

- PREPARATION**
- ACTIVITIES**
- OUTCOMES**



DEVELOP

SHIFT FROM CONCEPT TO REALIZATION BY PRIORITIZING FEATURES AND PLANNING HOW TO CREATE VALUE, DELIVER, AND CAPTURE IT OVER TIME. WHILE THE PRODUCT STARTS TO TAKE SHAPE, ORGANIZE ADDITIONAL VALIDATION SESSIONS WITH THE USER TO MAKE SURE YOU ARE GOING IN THE RIGHT DIRECTION.

- PREPARATION**
- ACTIVITIES**
- OUTCOMES**

Card Sorting

DURING EARLY VALIDATION SESSIONS, USE CARD-BASED ACTIVITIES TO ENSURE THE MVP IS ADDRESSING REAL USER NEEDS.

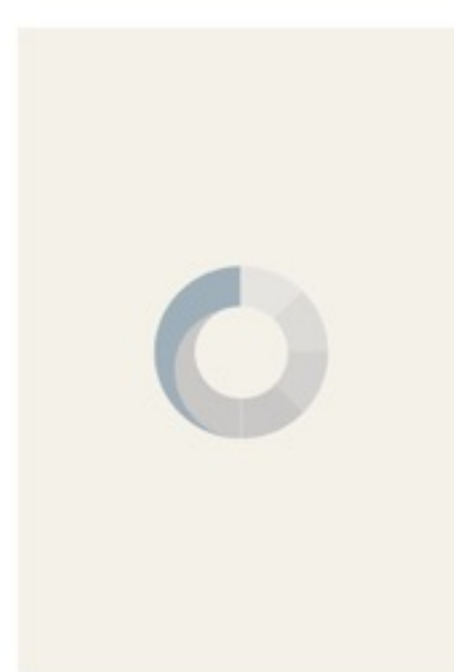
- TIME**
- MATERIALS**
- COMPLEXITY**
- ROLES**

CREATE THE CARDS

SHOW THE CARDS TO THE USER

ASK TO PRIORITIZE

ASK WHY



MAINTAIN

THE LAUNCH IS NOT THE BEGINNING OF THE JOURNEY, ONLY THE GOAL. WHEN THE PRODUCT LAUNCHES, CONTINUOUSLY GATHER FEEDBACK FROM FARMERS AND THE ECOSYSTEM TO REFINE AND IMPROVE THE PRODUCT, LOOKING AT ALL THE ASPECTS THAT SHAPE THE FINAL USER EXPERIENCE.

- PREPARATION**
- ACTIVITIES**
- OUTCOMES**

Monitoring Plan

SET UP A MONITORING PLAN TO UNDERSTAND WHETHER THE PRODUCT IS ACHIEVING ITS GOALS, OR HOW IT NEEDS TO BE CHANGED IN ORDER TO DO SO.

- TIME**
- MATERIALS**
- COMPLEXITY**
- ROLES**

IDEAL TO MEASURE

DEFINE MONITORING AREAS

Prioritize Most Important Areas

IMPLEMENT DATA COLLECTION

REVIEW PRIORITIES

MONITORING CLEAR OBJECTIVES

Area	Checklist Item	Checklist Item	Checklist Item
Monitoring	Identify the monitoring areas	Identify the monitoring metrics	Identify the monitoring measurement methods
Reporting	Identify the reporting methods	Identify the reporting frequency	Identify the reporting responsibility
Review	Identify the review methods	Identify the review frequency	Identify the review responsibility



BANGLADESH

Trust Circle

LEARN / ACTIVITY

UNDERSTAND WHO FARMERS TRUST FOR INFORMATION; THESE INSIGHTS ARE A FOUNDATION FOR THE MAGRI PRODUCT AND MARKETING AND DISTRIBUTION PLANS LATER.



TIME
20 minutes exercise



MATERIALS
• Worksheet
• Player cards



COMPLEXITY
Low: basic moderation skills



ROLES
Interviewer



LEARN / ACTIVITY

TRUST CIRCLE INSTRUCTIONS

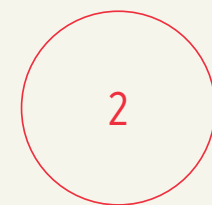


BUILD YOUR TRUST CIRCLE

Prepare a set of little cards that represent all the players you identified in the ecosystem (one player per card).

Do not exceed more than eight players or the exercise can become overwhelming.

RECOMMENDATION: IF YOU ARE AT THE BEGINNING OF A LONG FIELD RESEARCH TRIP, YOU MAY CONSIDER LAMINATING THE CARDS TO BETTER PRESERVE THEM



SHOW THE WORKSHEET AND CARDS TO THE PARTICIPANT

During the in-depth interview, place the cards in front of the participant so that he or she can see every item.

Introduce the cards one by one and explain the circles visualized in the worksheets to represent the different degrees of trust for information around the farmer.



MAP THE PLAYERS ON THE CIRCLES

Pick the first player you want to discuss and ask the participant how much he or she trusts that player.

You can place the card on the circles yourself based on the answer, or ask the participants to do that by themselves. Place the players who they trust the most at the bottom and center of the sheet, and players they trust less to the outer circles.



ASK WHY

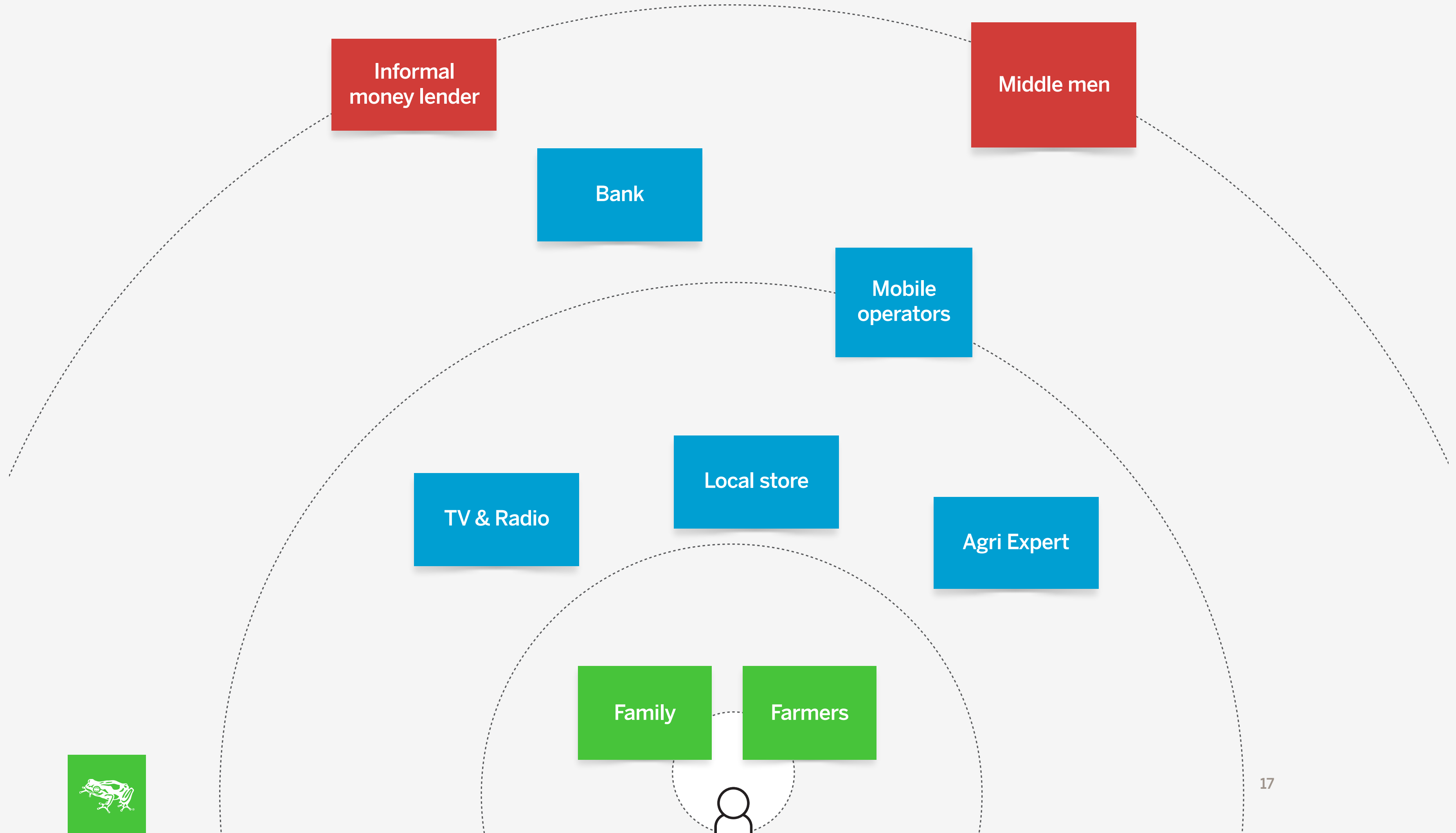
The exercise is just a trigger to dig deeper into certain aspects. Before jumping to the next players, always ask why the current one has been placed in a certain position. At the end review the entire map, trying to make some broader considerations about the ecosystem and user's trust.

CONTEXT

CIRCLE OF TRUST

Operator Perspective

“Who do trust for help and information on your farm?”



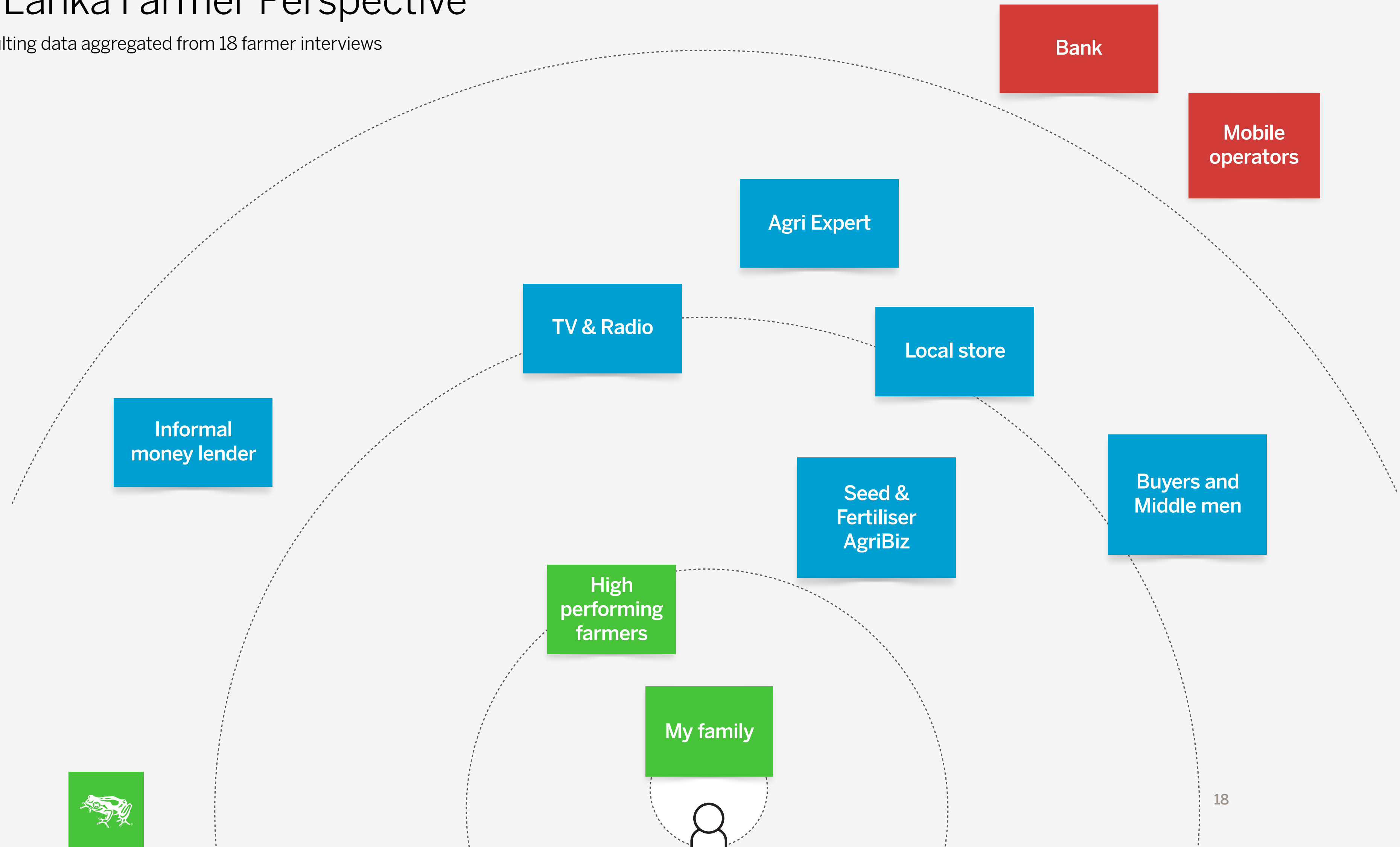
CONTEXT

CIRCLE OF TRUST

Sri Lanka Farmer Perspective

* Resulting data aggregated from 18 farmer interviews

“Who do trust for help and information on your farm?”



WHAT IS NEEDED?

THE mAgri DESIGN

TOOLKIT IS AVAILABLE TO HELP

YOU START USER-CENTERED

DESIGN,

BUT ORGANIZATIONS, PEOPLE AND

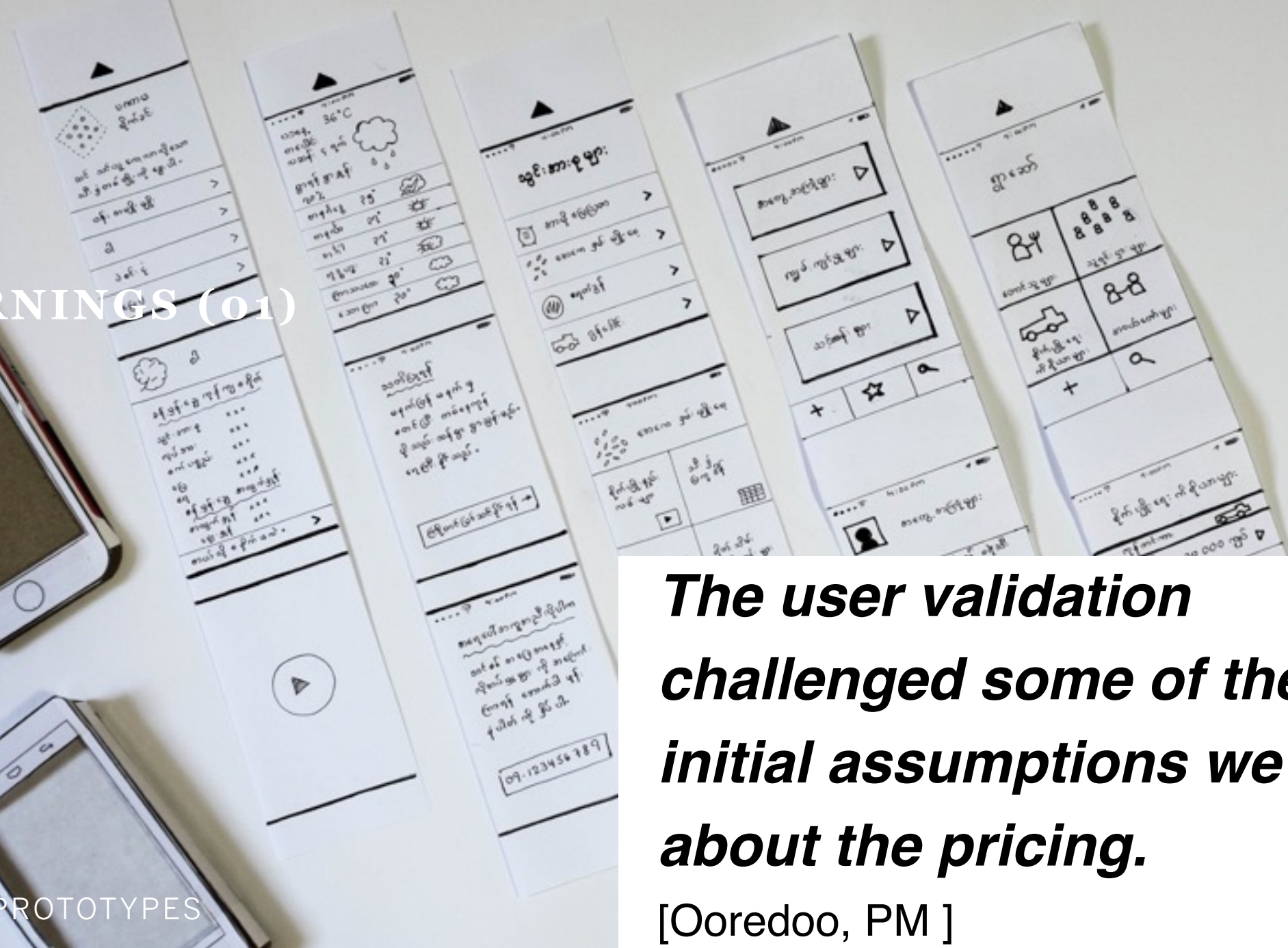
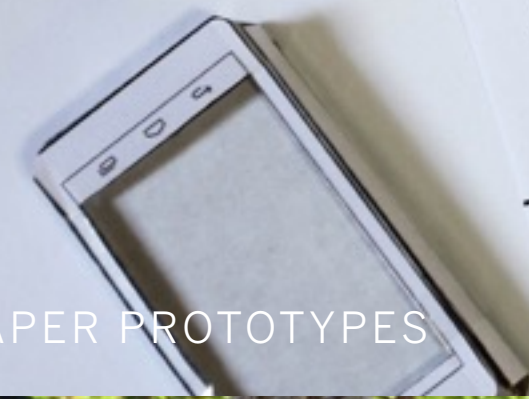
PROCESSES NEED TO CHANGE TOO

TO SUSTAIN THE JOURNEY.

KEY LEARNINGS (01)

LISTEN: GO SLOW TO GO FAST

KEY LEARNINGS (01)



SRI LANKA: PAPER PROTOTYPES

The user validation challenged some of the initial assumptions we made about the pricing.

[Ooredoo, PM]



GHANA: VOICE MESSAGE SIMULATION

GHANA: CONCEPT EVALUATION



BANGLADESH: PAPER PROTOTYPES



I got real feedback about what farmers really want and changed the design. I'll work with paper prototypes on any other future project.

[Grameenphone UX expert]



KEY LEARNINGS (02)

EVERYONE SHOULD LISTEN:

BE

INCLUSIVE



KEY LEARNINGS (02)

SRI LANKA: TEAM SETUP

I wish we had taken colleagues from other teams such as marketing and technology to the field frequently during the research stage. They would have had insights about farmer needs that could have been embedded in the product.

[Dialog, Product Manager]





KEY LEARNINGS (03)

LISTEN TO DIFFERENT VOICES:

DON'T

CONSIDER

FARMERS AS

JUST FARMERS

KEY LEARNINGS (03)

GHANA: USER ARCHETYPES



(A1) TRAPPED



(A2) ESCAPIST



(A3) ACCEPTOR



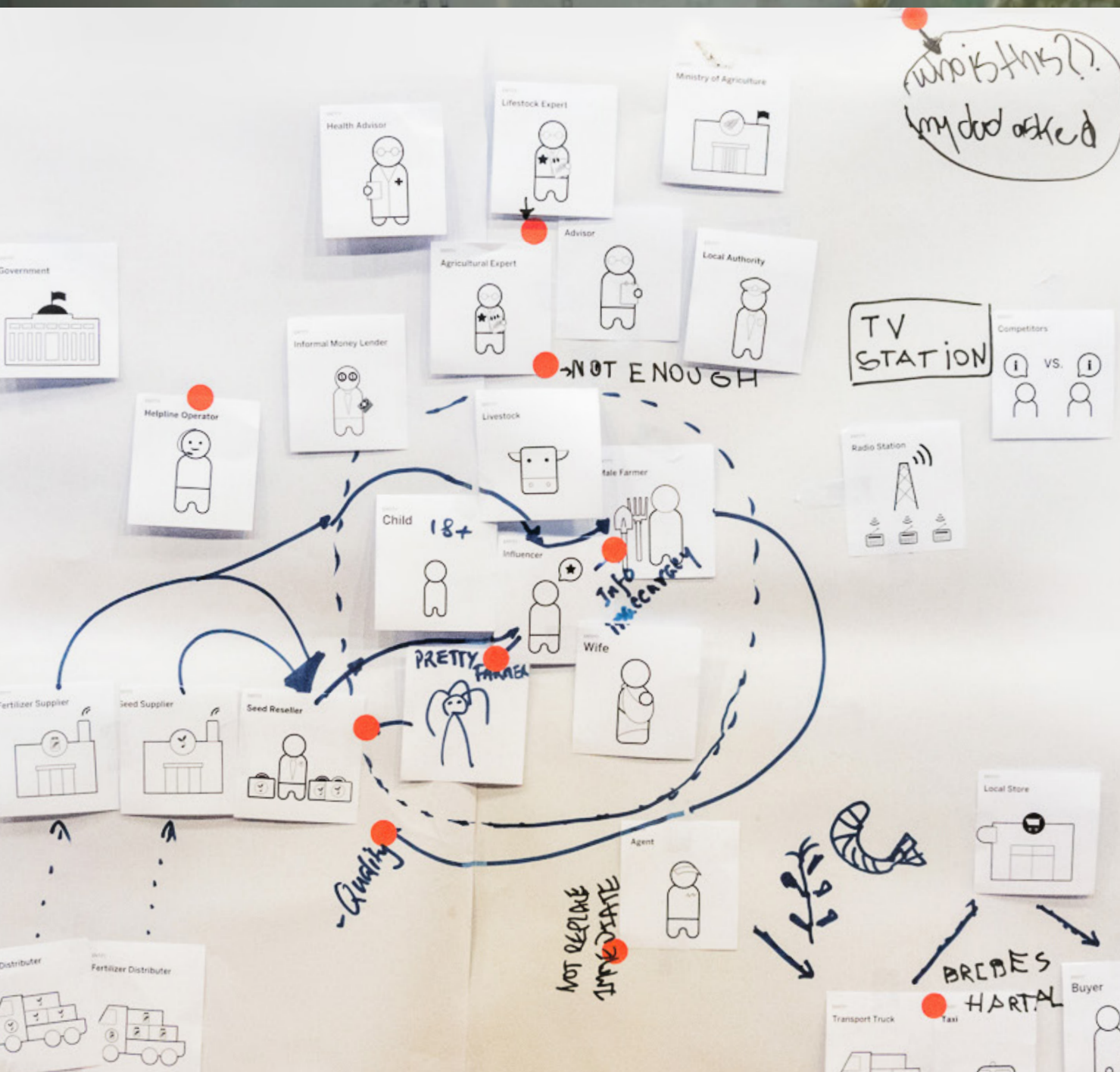
(A4) COMPETENT OPTIMIST

Don't assume that all farmers are the same when you design a product.



GHANA: USER ARCHETYPES

The lead farmers are the most trusted source of information. This insight completely changed our go-to-market (GTM) strategy.
[Maq, Grameenphone UX expert]



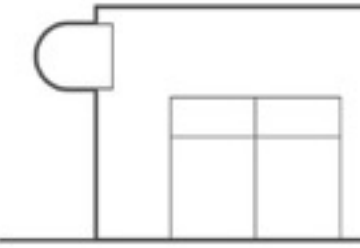
MALAWI: ECOSYSTEM MAPPING



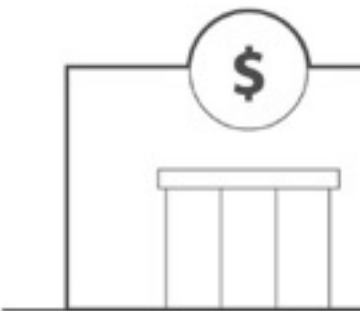
TRUST CIRCLE MAP

Identify who/what the participants interact with the most, and how this influences decision-making

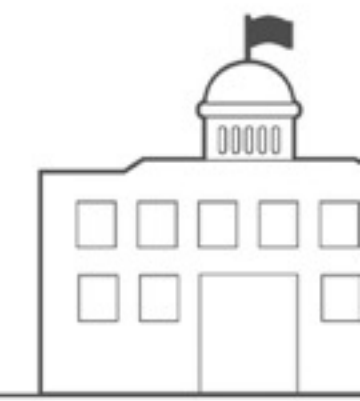
LET'S EARN OUR CUSTOMERS' TRUST



LOCAL STORE



BANK



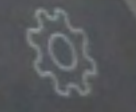
GOVERNMENT



House-farm Tour

LEARN / ACTIVITY

ASK FOR A GUIDED TOUR THROUGHOUT THE
TOUR TO LEARN ABOUT WHERE A FARMER LIVES AND WORKS
AND ABOUT THEIR HABITS, NEEDS, AND CHALLENGES.



ROLES

- Interviewer
- Note-taker
- Photographer



USE THE OBSERVATION TO VERIFY WHAT THE FARMERS SAY: SOMETIMES PEOPLE DON'T TELL THE EXACT TRUTH OR FORGET KEY DETAILS

INTRODUCE YOURSELF AND THE TEAM
Introduce yourself and your organization and explain your objectives to set clear expectations. Always check in to see if the participant is comfortable with the interview and to provide a context for the conversation.

ASK FOR A TOUR
Only start the house-farm tour after you have asked the farmer through his or her day visiting the specific place. Carefully listen to every detail.

DEEPLY INVESTIGATE USEFUL INFORMATION
Take time after the visit to clarify what you observed and to identify correlations that have a correlation to pursue every activity.

AFTER THE VISIT
Don't forget to debrief the participants and interviewees. Debrief the team.

<http://www.gsma.com/mobilefordevelopment/magri-design-toolkit>



THANKS!