



FEED THE FUTURE

The U.S. Government's Global Hunger & Food Security Initiative



Collaborative Research
on Sorghum and Millet

TARGET COUNTRIES

SMIL Annual Review Meeting

March 21 – 25, 2022



USAID
FROM THE AMERICAN PEOPLE

KANSAS STATE
UNIVERSITY



**Increased
Resilience**



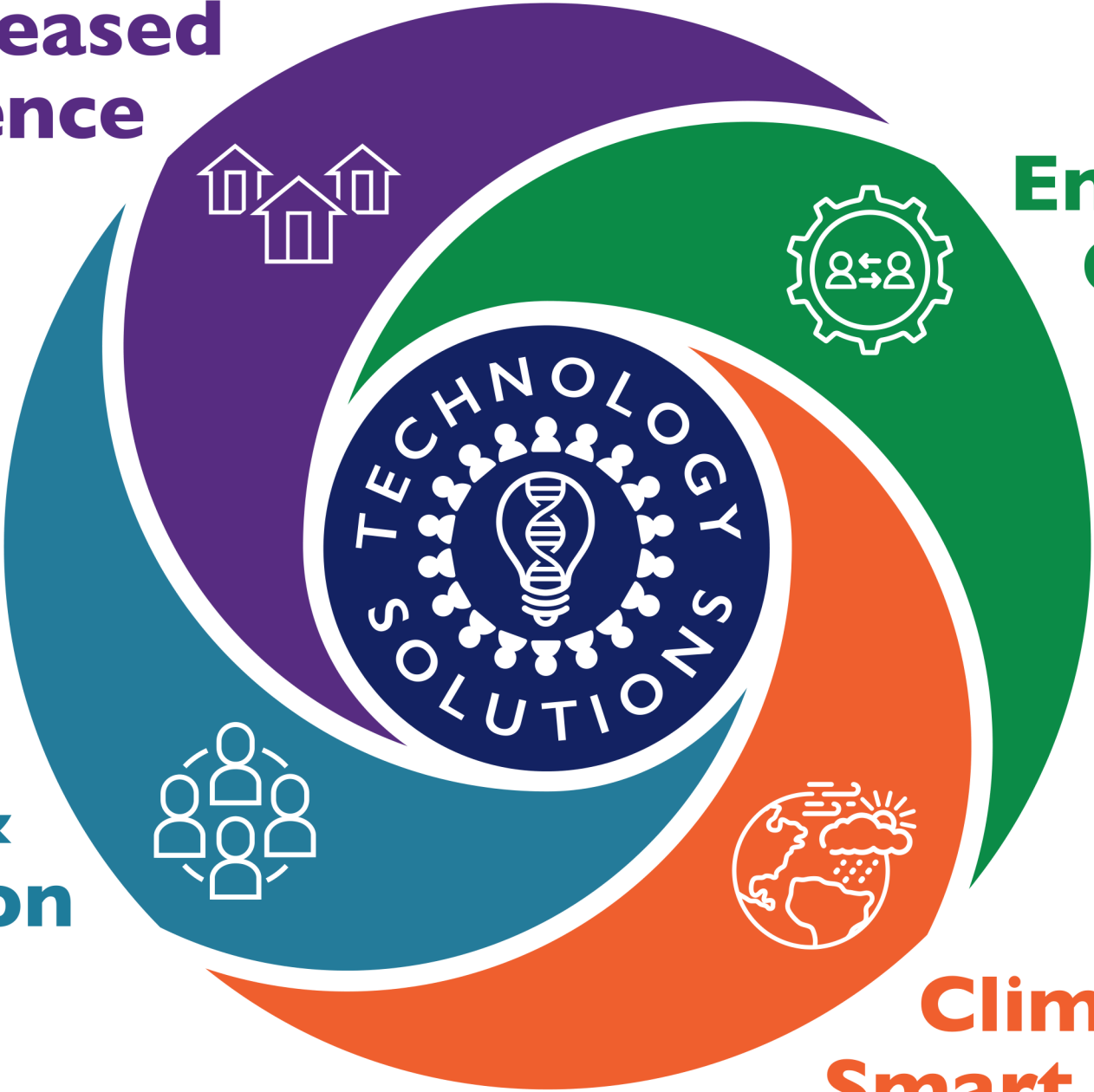
**Engagement
Co-Creation**



**Equity &
Inclusion**

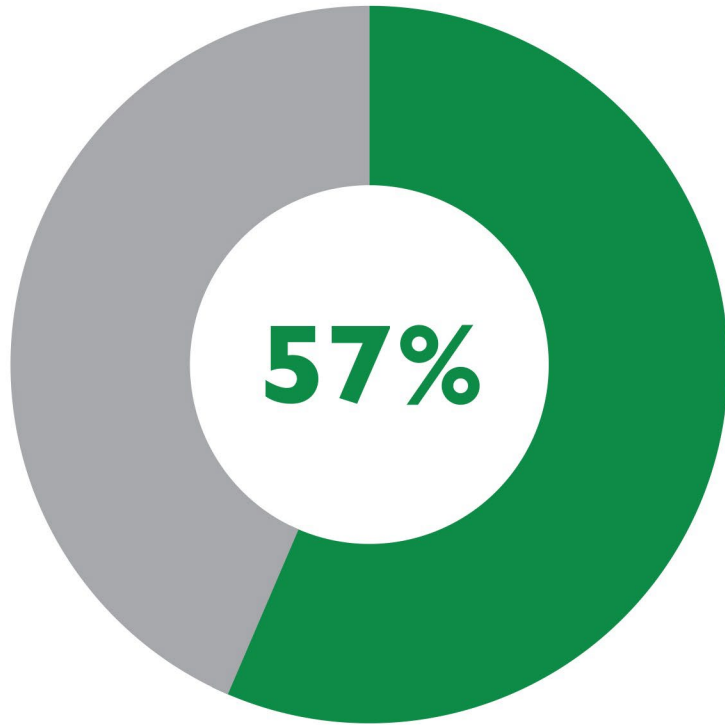


**Climate
Smart**

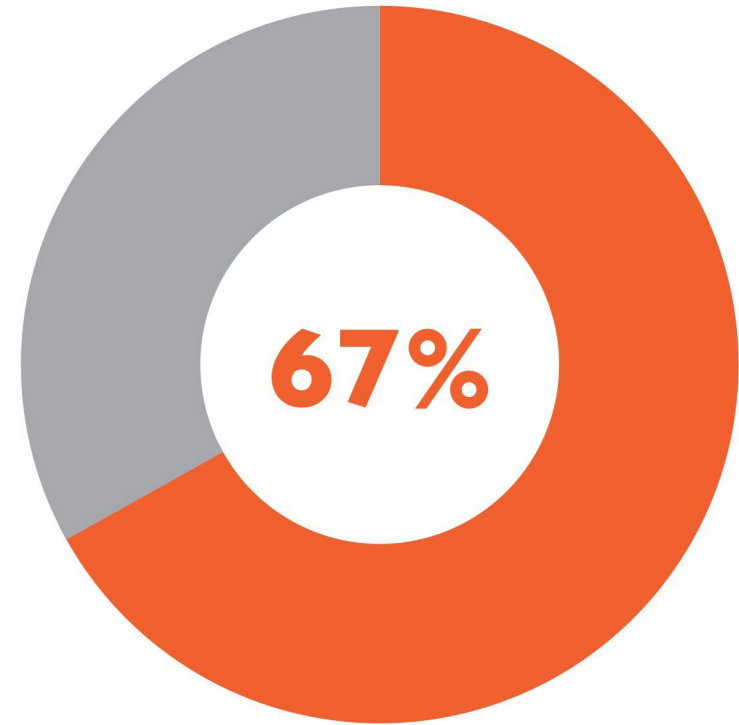




FUNDING



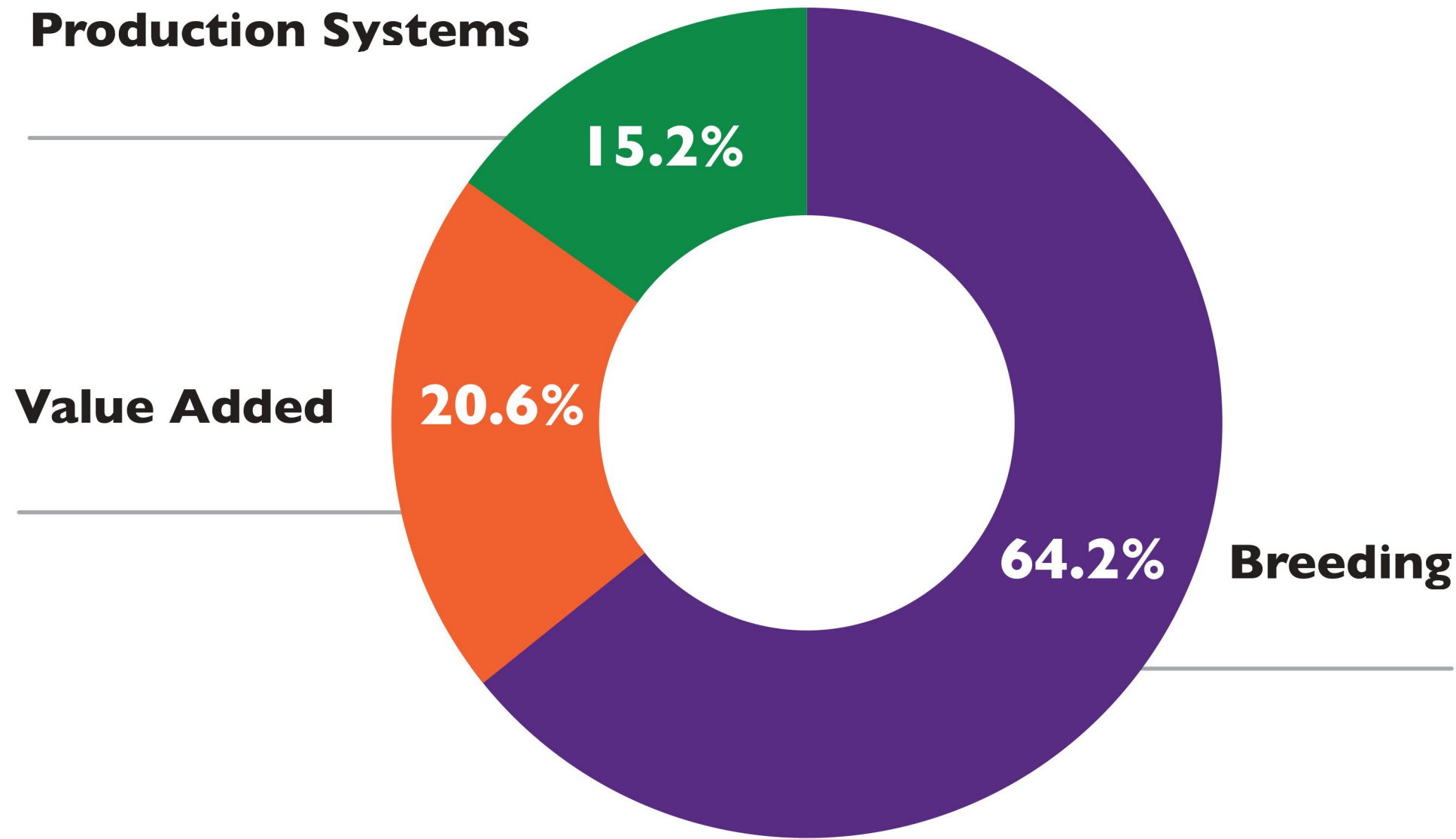
57% of research funds were directly transferred to our in-country national partners



67% of the SMIL total funds are allocated to Research

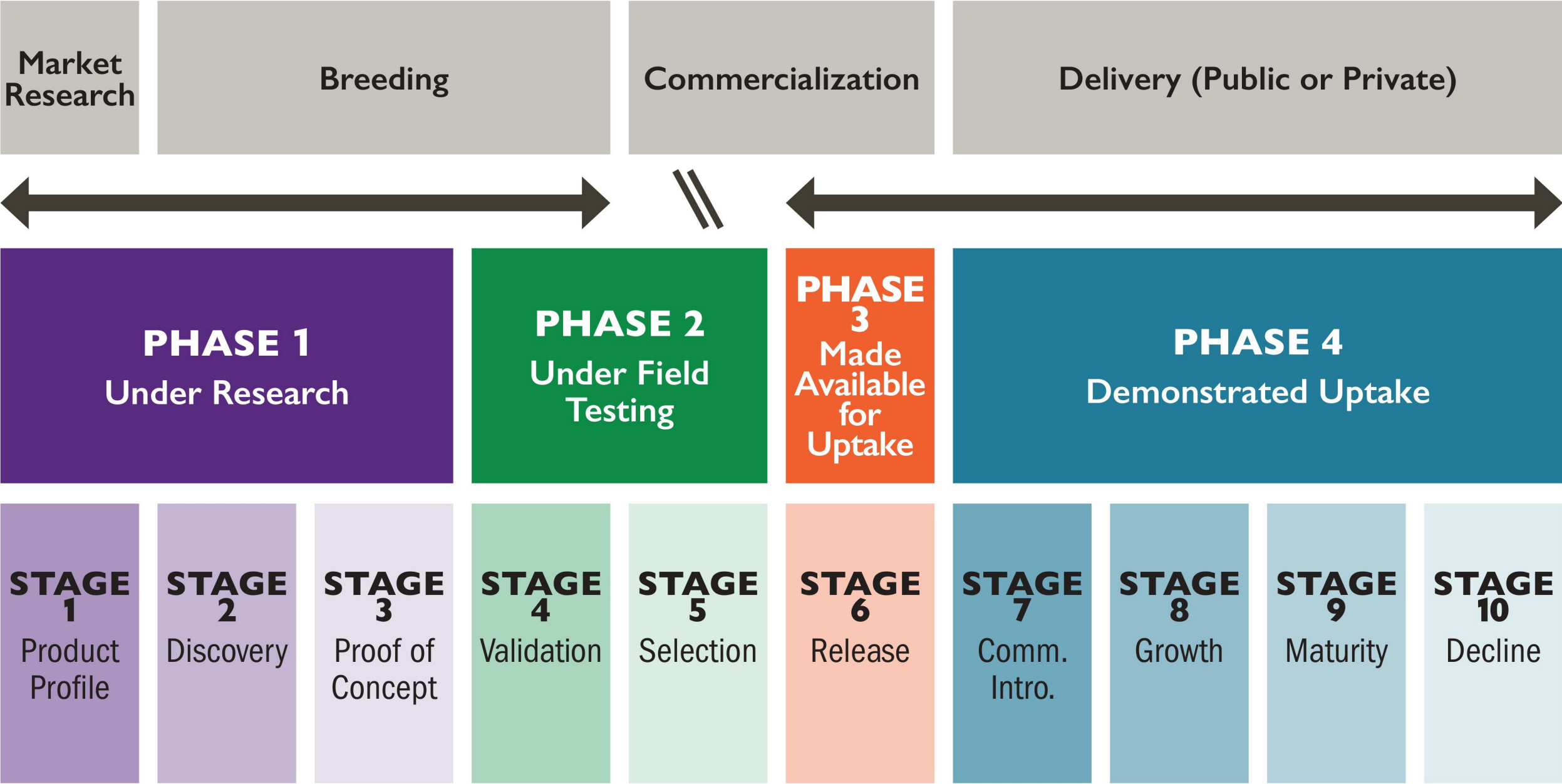


RESEARCH BUDGET - AREA OF INQUIRY

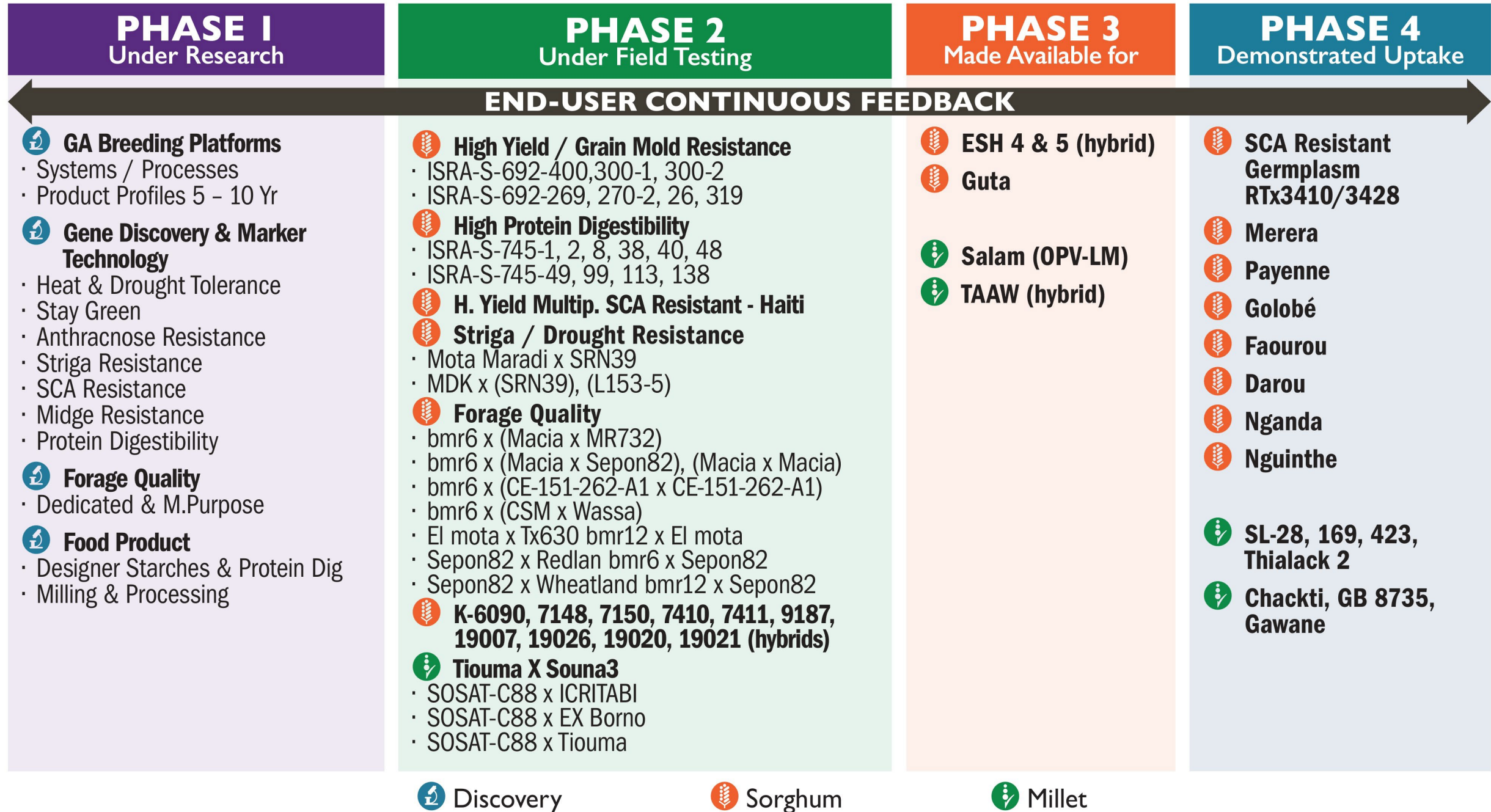




PRODUCT LIFE CYCLE FRAMEWORK



SEED PRODUCT PIPELINE





TRANSFER & COMMERCIALIZATION

PHASE 1

Under
Research

PHASE 2

Under Field
Testing

PHASE 3

Made Available
for Uptake

PHASE 4

Demonstrated
Uptake

END-USER CONTINUOUS FEEDBACK

Private Seed System

Private Seed Companies
Engagement PPB
“First Mile & Last Mile”
Field Plot & Farmer Showcasing
Technical Backstopping

Public Seed System

National Seed Enterprise
Regional Seed Enterprise

Community-Based Seed System

Farmer Association Networks
Engagement PPB
“First Mile & Last Mile”
Skills Transfer Seed
Multiplication and Maintenance

PRODUCTION SYSTEMS

PHASE 1
Under Research

PHASE 2
Under Field Testing

PHASE 3
Made Available for Uptake

PHASE 4
Demonstrated Uptake

END-USER CONTINUOUS FEEDBACK



Planting Technology

- Seed Ball Local Production
- Dry Seeding / Planting Technology



Delivery Science

- Women's Empowerment
- Large Farmer to Farmer (1,000's) Technology Transfer
- Sociological Factors
- Transfer Methodology & Principles
- Training & No. Repeat Visits
- Other NGO / Program Based Replication Potentials



Dedicated Forage

- Melkam Variety x High+ Planting Density
- Manual and Mechanical Chopping



Planting Technology

- Seed Ball Local Household Level Production
- "Dry Seeding" / Planting Technology



Crop Protection - Millet Head Miner

- Integrated Pest Management Approach
- Household Rearing and Strategic Release (Naturally Occurring Predatory Wasps)



Sorghum



Millet

FOOD PRODUCTS / TECHNOLOGIES PIPELINE

PHASE 1

Under Research

-  Nutrition Density
-  Protein and Starch Availability
-  Digestibility
-  Taste / Texture / Color
-  Local Natural Fortificants
-  Milling Properties
-  Storage










PHASE 2

Under Field Testing

-  Farine / Katanaal
-  Unique Sorghum HD Traits / Market JABOOT
-  Milling Technologies x Sorghum
-  Instant Millet Dégué
-  Millet Ice Cream

PHASE 3

Made Available for Uptake

-  Doo JABOOT
-  Farilac – Farine Infantile
-  SO'FUNNY – céréales instantanées
-  Instant Millet (Fura, Couscous, Tuwo)
-  Co-Extruded Millet-Peanut (Lackiri)
-  Co-Extruded Sorghum-Fortified Flour
-  Roasted Sorghum-Fortified Flour
-  HPD Sorghum / Teff Economic Injera
-  Food Product Evaluation & Sensory Laboratory

PHASE 4

Demonstrated Uptake

-  Jaboot – Yogurt (Thiakri)
-  Jaboot – Cereal (Thiere, Arraw, Thiakry)
-  **Hub/Spoke:** Processing, Marketing, Business Plan, Accounting, Technical Backstopping, Social Innovation

END-USER CONTINUOUS FEEDBACK

 Discovery

 Packaged Food

 Food Products

 Training/Skills Transfer

COUNTRY PRESENTATIONS

Ethiopia

Niger

Senegal

USAID Reactions & Recommendations

Q&A Session