Farmer Research Networks (FRNs)
Democratizing the innovation process

DIAGNOSES the need

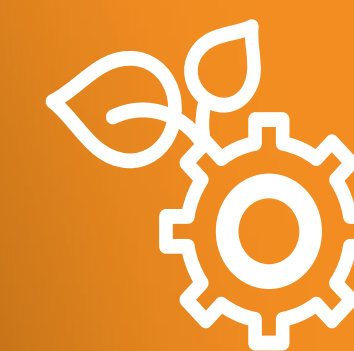Smallholder systems are highly heterogeneous. Agroecological intensification (AEI) data needs are enormous.

A "business as usual" approach cannot provide the AEI evidence base. Alternative: Observational and experimental datasets from farms.

Rural organizations that support farmers form a collective rural infrastructure that could contribute to a grassroots research capacity.

Participatory methods have been effective at a small scale in producing relevant research at a small scale.

Need to connect social, technological, methodological, and political capital to achieve widespread change.

PRINCIPLES AND ELEMENTS
linking social and technical innovation

TECHNICAL CAPITAL
Scoping studies to allow us to identify partners and introduce the concept of FRNs.
Value propositions, including:
- Germplasm – crop and varietal options (linking breeding programs to communities)
- Crop management options
- Pest and disease management options

METHODOLOGICAL CAPITAL
- Both observational and experimental datasets
- Large-N trials: design to explore key hypothesis about GxExMxS
- Ways of working across disciplines and sectors

SOCIAL CAPITAL
- Scoping for partners with strong linkages in communities
- Linking social and technical innovation processes

CONTEXTUALIZED SCALING
creating change at scale

- Stronger, vibrant, and more autonomous rural organization; other actors inspired by FRN spread and methods
- Support by the "Big Data for SHF" CoP
- Strengthened research and development sector (more relevant, sustainable and accountable)
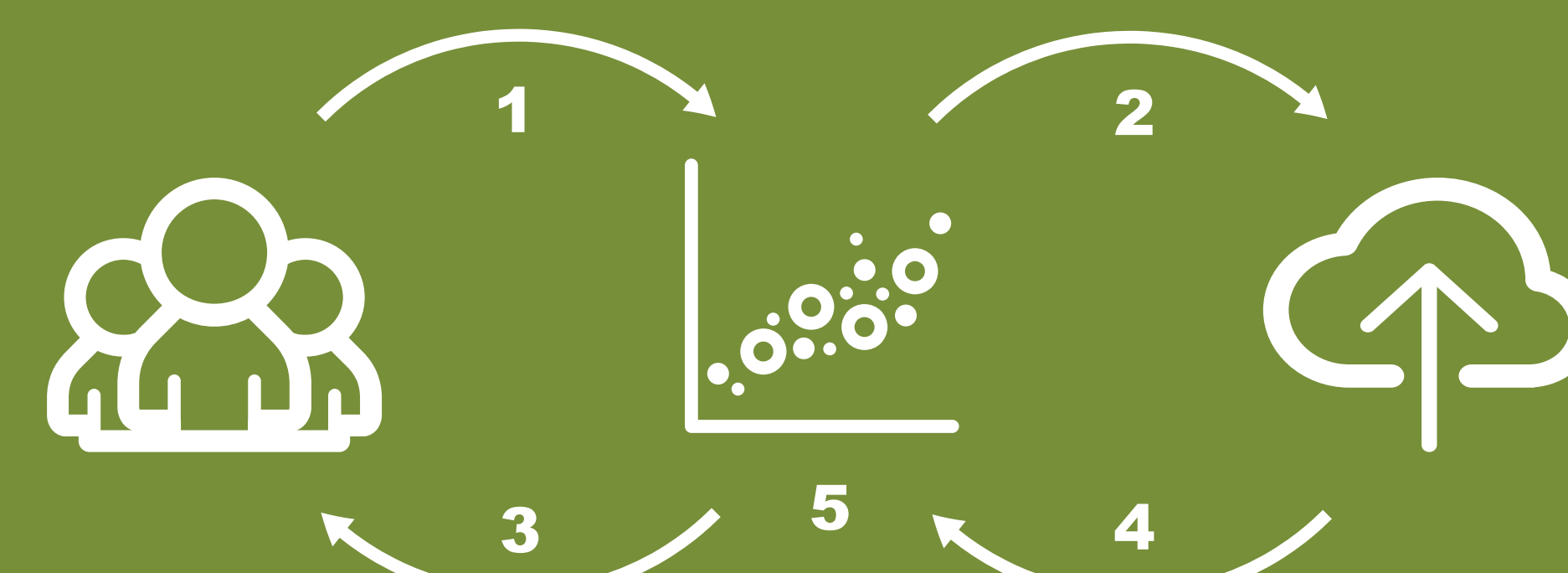- More and better AEI evidence

IMPLEMENTATION
pathways to change

1. CAPTURING DATA FROM SMALLHOLDER FARMERS (SHF)
- Careful targeting of options
- Option negotiations by stakeholders
- Data capture software and hardware
- Sensors for the invisible

2. GETTING LOCAL DATA AND INFO TO GLOBAL DATABASED
- Designed to allow small disparate efforts to use common platform
- Cloud access
- Address interpretational issues

3. GETTING IDEAS, RESULTS AND INSIGHTS TO FARMERS
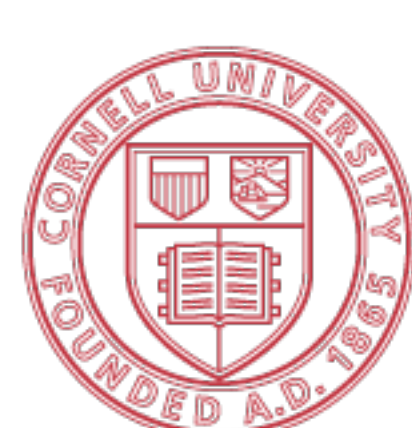- Technology options
- Analytics
- Data visualization

4. INTEGRATING GLOBAL AND LOCAL DATA
- Global data on weathers, soils, genes etc.
- Lowering the entry barrier

5. TECHNICAL HUB
- Ag Technologies: Principles and practices
- Information/Data technologies: Tools and workspace
- Sensors and gadgets

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