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Together for Systems' Innovation

AKIS assessment: functionalist and transformative perspectives

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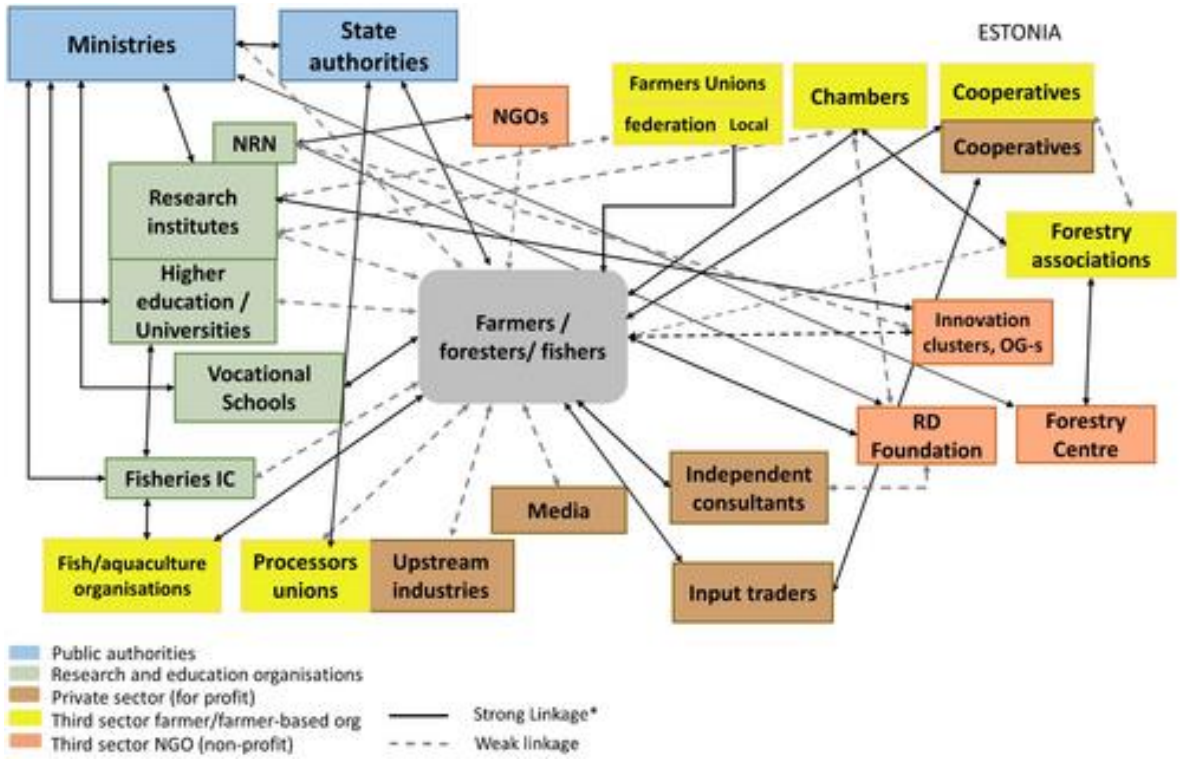
Functionalist Assessment

AKIS: based on knowledge flows and interactions



System dynamics of AKIS

- Understanding innovation *system dynamics* beyond structural elements
- *Seven* Functions of Innovation Systems influence overall performance at the system achieves
- Providing evidence on *how* key processes *work* and *what* the system achieves
- Related to the capacities and interaction of components
- Seven key functions *must be fulfilled*.

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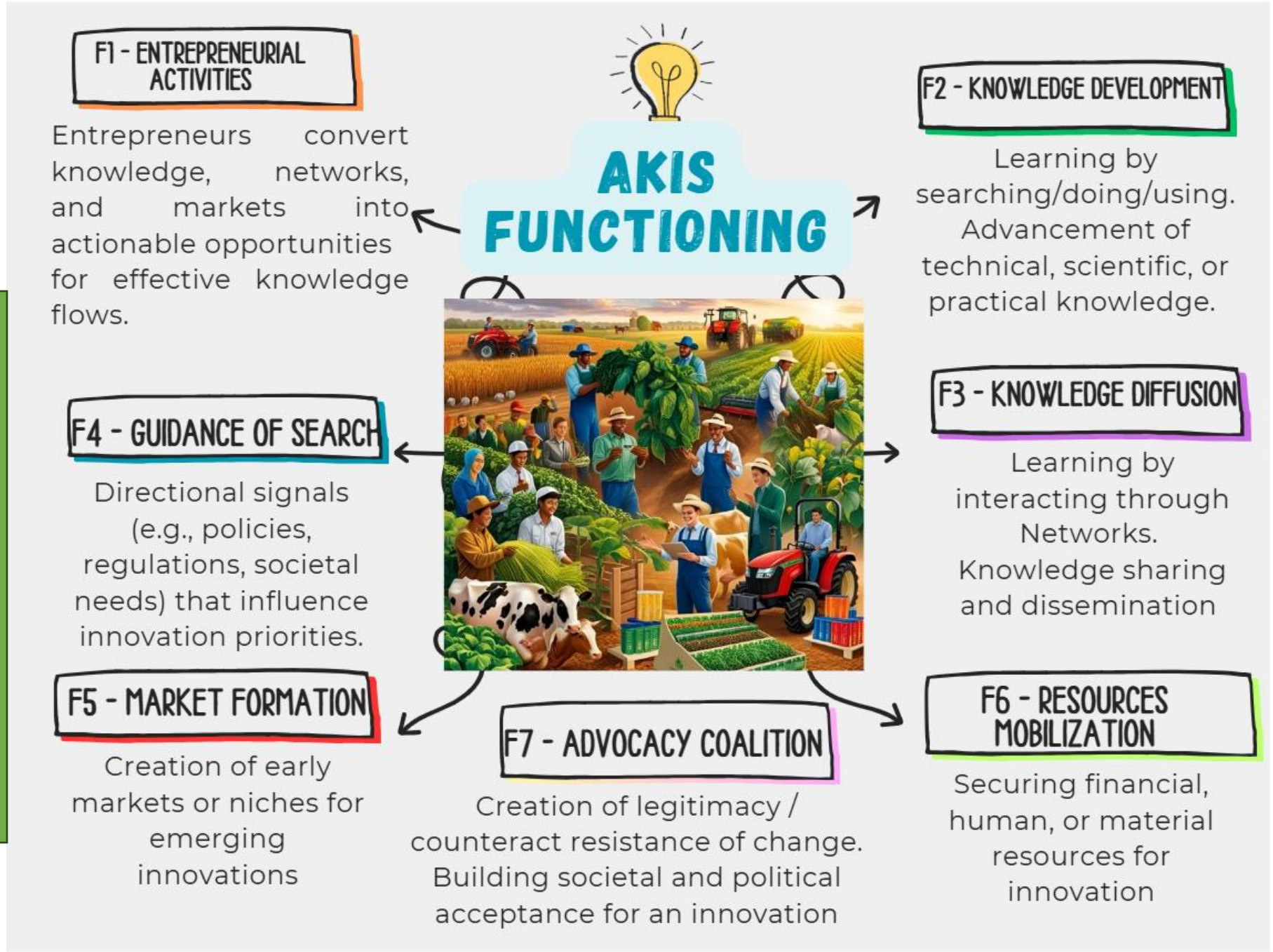
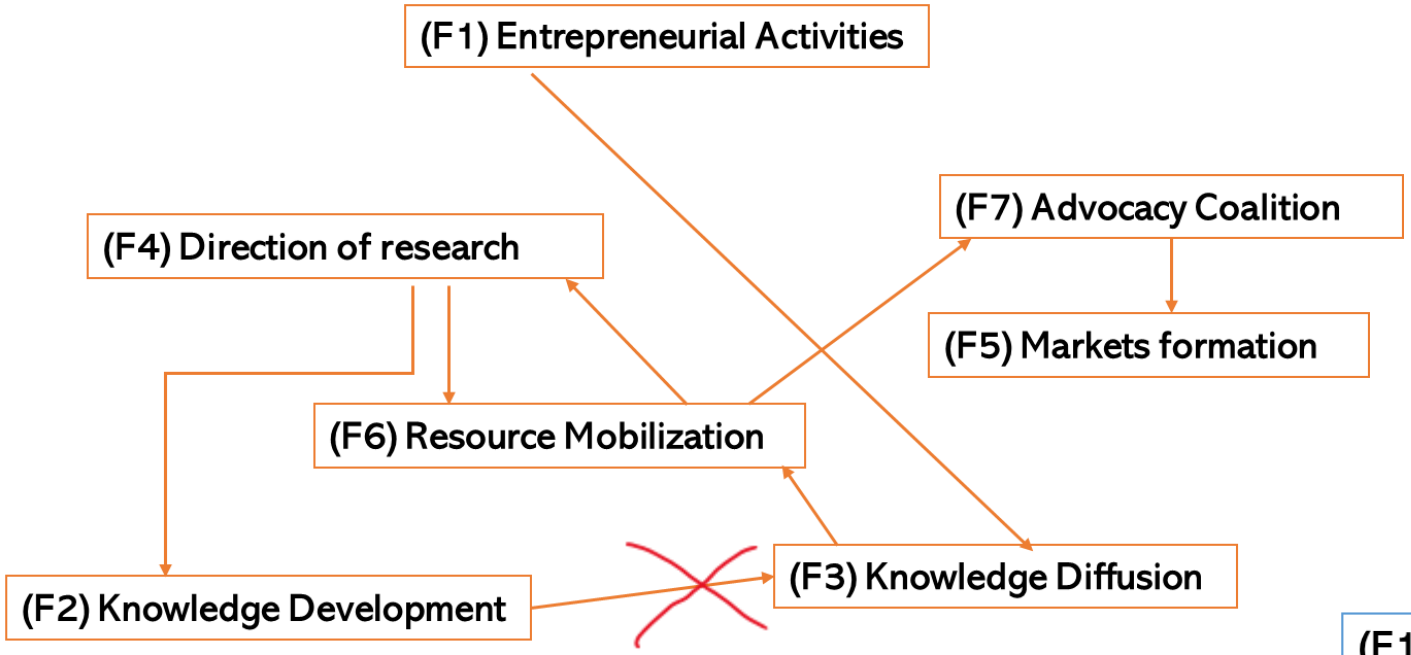
System functions

Which are the **key functions/processes** that enable the **knowledge flows** and **innovations** within the AKIS?



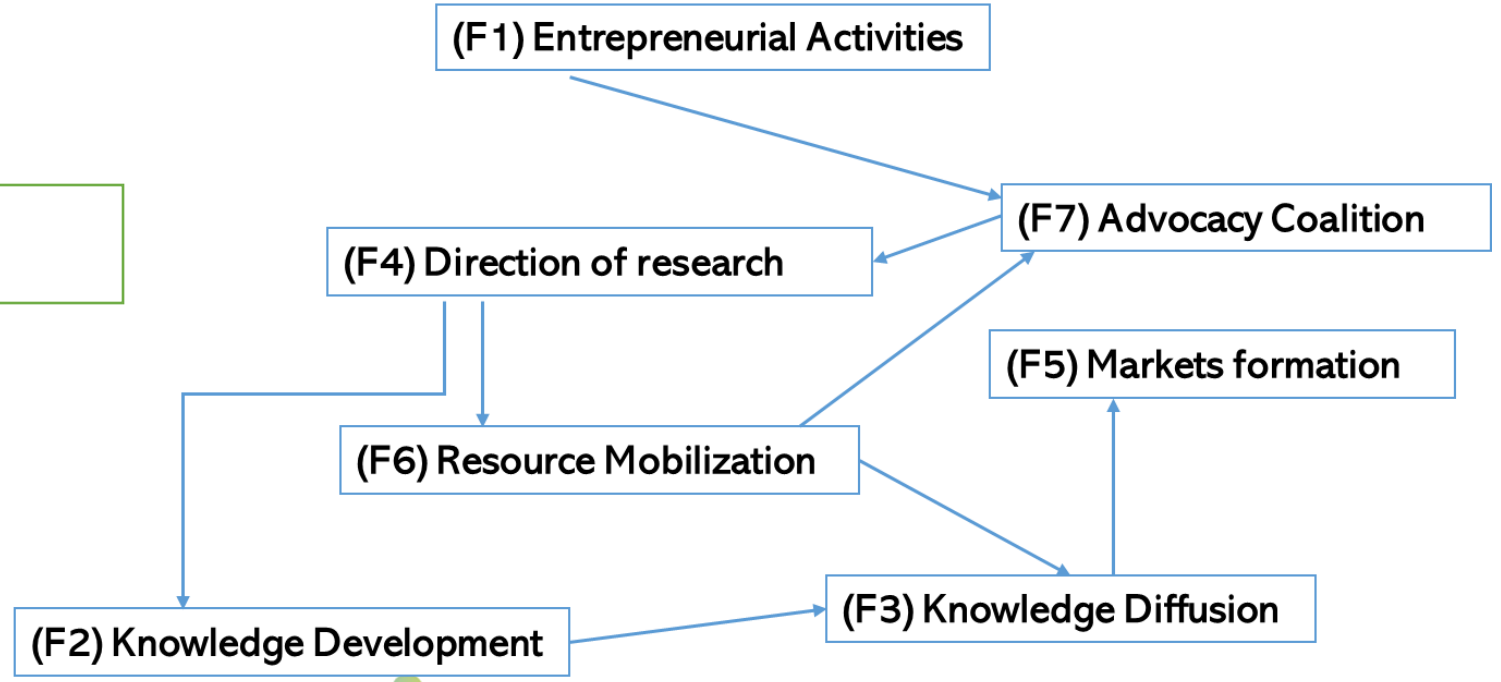
Source: Based on Hekkert et al, (2007)

Plurality of Virtious/Vicious circuits of functions



Barriers

System Failures



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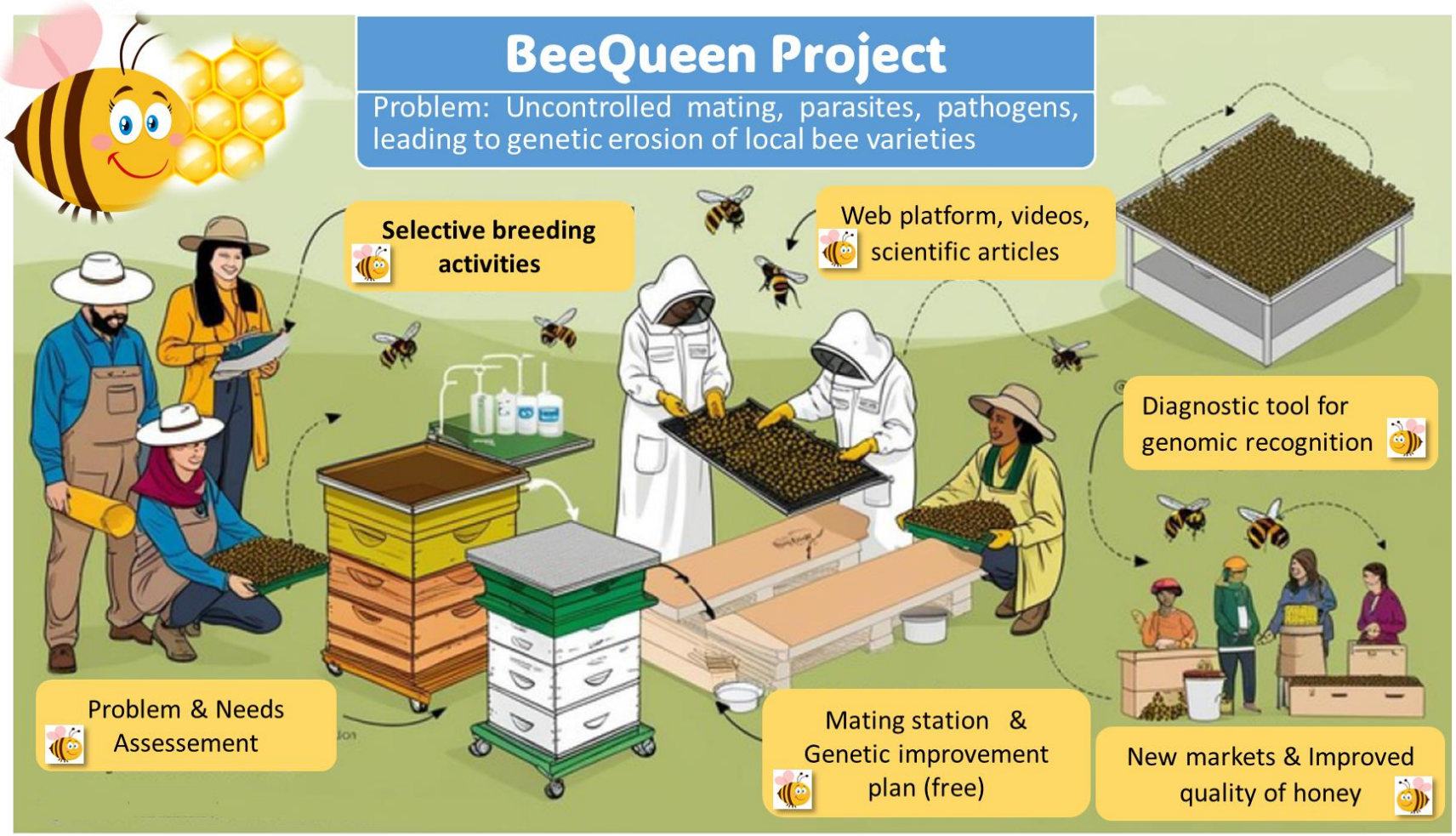
Source: Based on Hekkert et al, (2007)

BeeQueen EIP-Project: an example of an innovation system functioning

Problem: Beekeepers face challengers related to uncontrolled mating, leading to genetic erosion, along with climate change, parasites and pathogens that threaten of local bee varieties.

Solution: **selection** of **families** that maximize honey production relative to brood size, promotes longer-lived bees, and those with extended winter pauses in laying eggs, reducing Varroa mite treatments >> (1) **selective** maternal and paternal **breeding activities; (2)** prototype of a **mating station** open to all beekeepers for queen fertilization; (3) A **diagnostic tool for genetic recognition** of Apis mellifera varieties; (4) texting a **Sex Determination Locus**.



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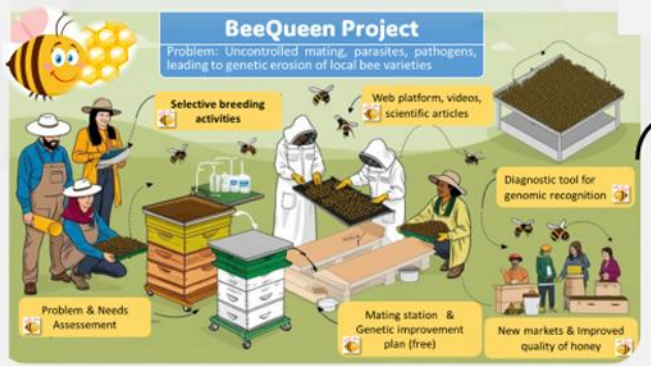
F1 - ENTREPRENEURIAL ACTIVITIES

- Investment in the OG
- Use of a DSS
- Site-specific treatments
- Change of bee varieties

OG Functioning

F2 - KNOWLEDGE DEVELOPMENT

- Problem assessemnt
- Genetic testing
- Prototype of Mating site
- Data collection on mating
- Indeces for genetic analisyes ...



F3 - KNOWLEDGE DIFFUSION

- Free service on genetic improvement plan
- Project Website
- Events, including P2P
- Pubblications & PA

F4 - GUIDANCE OF SEARCH

- Societal needs
- Biodiversity conservation
- Climate change mitigation

F5 - MARKET FORMATION

Improved honey products based on local bee varities

F7 - ADVOCACY COALITION

Free services and biodiversity-friendly practices created major awarness on biodiversity loss that brought to counteract reluctant and innovation scaling

F6 - RESOURCES MOBILIZATION

RDP resourcers

How long BeeQueen applied the system functions?

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What & How to assess AKIS Functioning

Which criteria and methods?

Functions' Analysis

Gaps of functions

Presence by actors & infrastructures

Actors & infrastructures playing functions

Social Network Analysis

Constraints/Barriers to for each function

Nodes & Ties of processes

Virtous & Vicious circuits of functions

Process mapping

Satisfaction of functions played by type of actos (e.g. advisors)

Functions & Actors by value chains/over time

System analysis

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AKIS Capacities, assessment Questions & Criteria

Which capacities are relevant to REALIZE THE POTENTIAL OF INNOVATION?

TO NAVIGATE THE COMPLEXITY

Applying an *holistic perspective* to comprehend relationships, feedback loops, and adaptability within the system

TO COLLABORATE

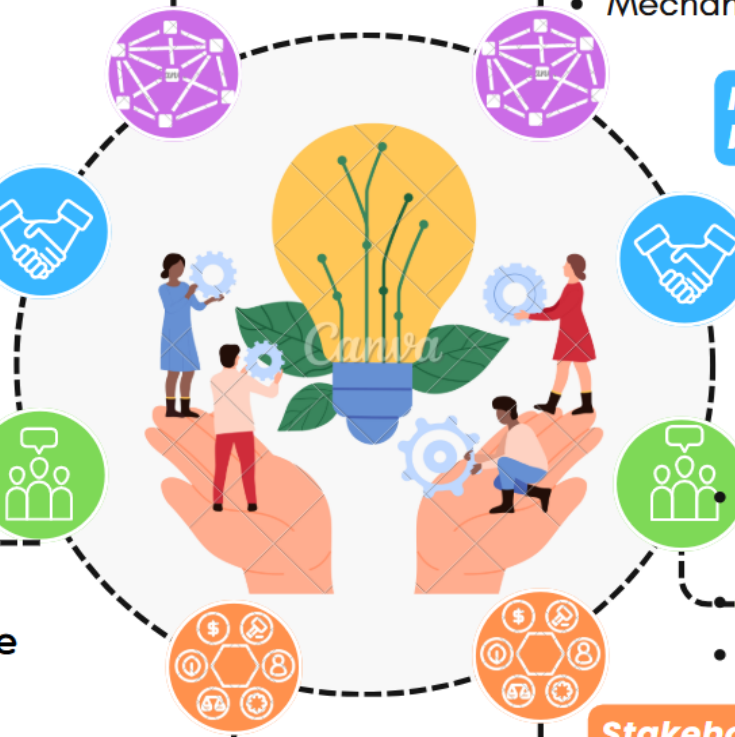
Understanding *others' perspectives*, building partnerships, collaboration, and effective internal and external communication.

TO REFLECT & LEARN

Facilitate stakeholder collaboration through *reflective learning*, fostering trust, adaptability, and iterative action *for systemic change*.

TO ENGAGE IN STRATEGIC & POLITICAL PROCESSES

Understanding and shaping the politics and *power relations* to create *new ways for stakeholders to interact*



Has a common vision & strategy been developed by stakeholders?

- AKIS Strategy
- Resources: Availability, Mobilization
- Decision-making valuing local knowledge
- System Failure/Barriers adjustments
- Mechanisms for innovation scaling
- Mechanisms of collective visioning

Has a common vision & strategy been developed by stakeholders?

- Successfull OGs
- Innovation support services
- Incentives for networking, MA

Mechanisms of M&E in place?

- M&E processes, joint learning & follow-ups
- Understanding of knowledge flows
- Methods and tools for facilitation

Stakeholders aware of major challanges of agriculture?

- AKIS coordination body: role, functions, attitudes
- Awareness of opportunities for policy change
- Guidance of research
- Strategic decision-making influenced by stakehold
- Up-to-Date Skills

Source: Based on Tropical Agriculture Platform (2016); modernAKIS D1.1. (2023)

What & How to assess Capacities

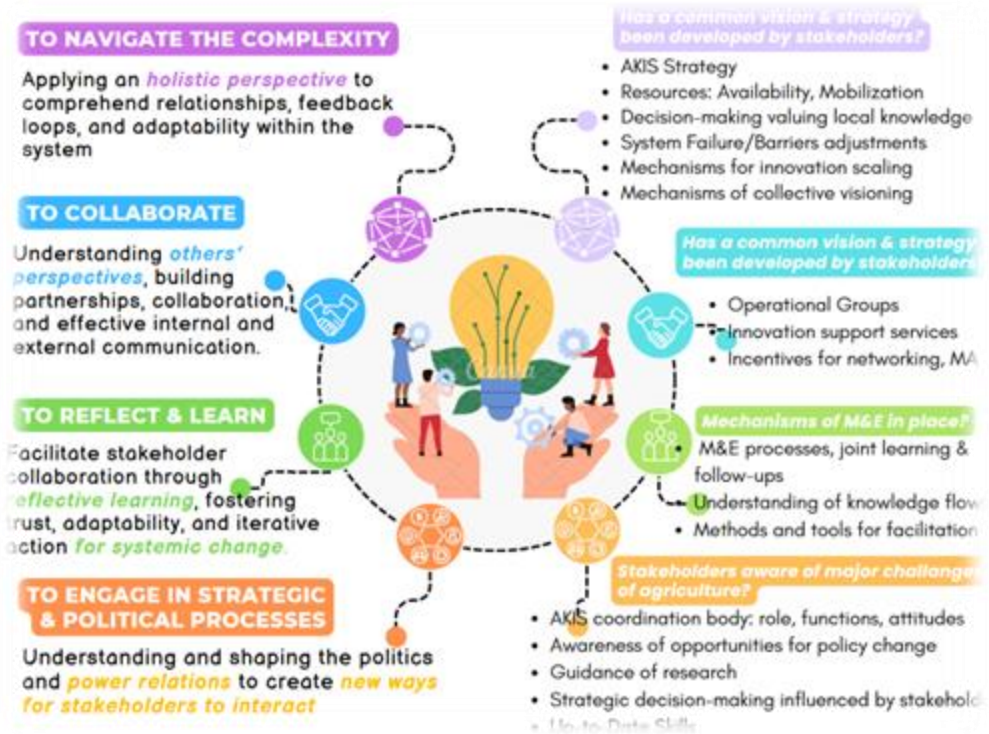
Are system capacities satisfactory to make the AKIS well-functioning >> knowledge flows leading to innovation & change?

Availability of capacities at relevant levels

Degree of satisfaction

Quality of performance

Compliance



Relevance Assessment & Funding Alignment

Participatory Rapid Appraisal

Policy Review and Adjustment

S.W.O.T. analisys

System analysis

Scenario planning

Gap Analysis

Outcome mapping
Impact assessment

Capacity assessement

Source: Based on Tropical Agriculture Platform (2016); modernAKIS D1.1. (2023)

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Proudly say

Thank you

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