Contributions to innovation scaling and impact through project-based approaches

Challenges and experience in DeSIRA

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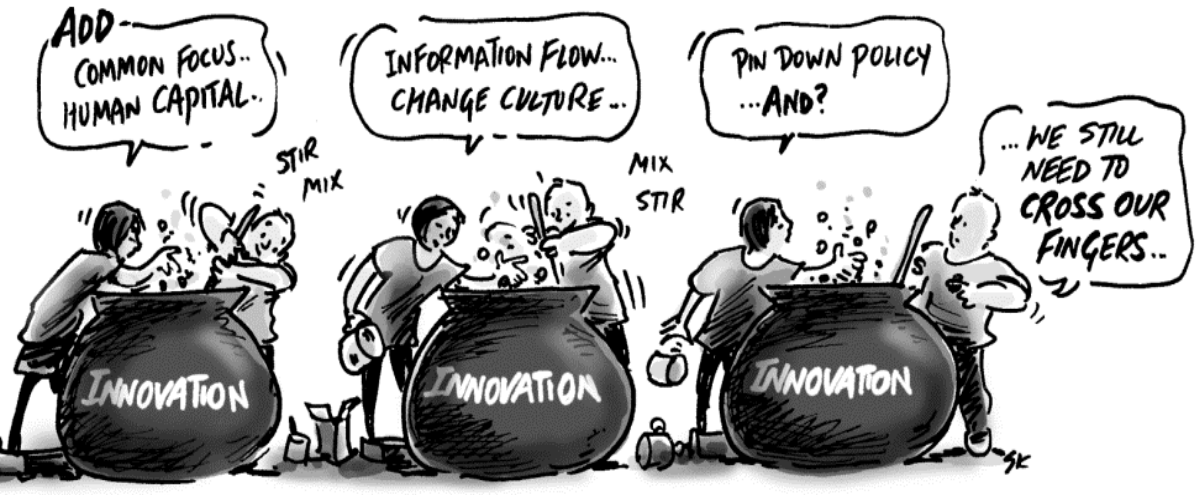
OUTLINES



1- Learning review framework

2- Scaling innovation “products” in DeSIRA: strategies and challenges

3 - Scaling innovation capacities in DeSIRA: strategies and challenges

4 – Conclusions

The DeSIRA Initiative: activating sustainability transitions through research and co-innovation

The DeSIRA Initiative portfolio

- 80 research and innovation (R&I) projects
- 65 countries, 3 continents
- 2019 -2026
- EU contribution of €340,000,000.
- >1600 researchers involved
- >800 organisations involved, incl. 223 research org.

Expectations from research

- Solutions to complex problems
- not only as a provider of technologies
- More proactive role in designing and even managing transformative processes
- Accelerate answers to CC

Challenges for research

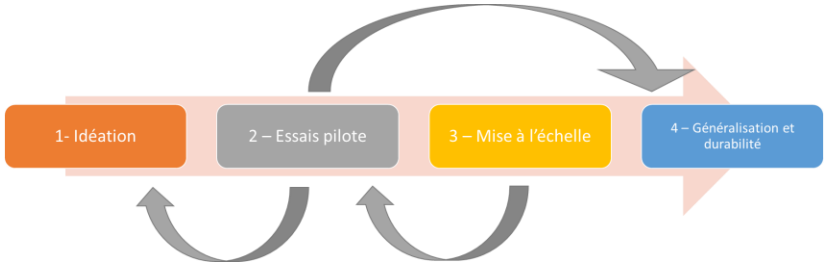
- Breaking silos
- Reconnect science to end users
- → engage in multi-actor innovation partnerships and support innovation processes
- → Impacting while transforming itself
- →Through project-based approaches

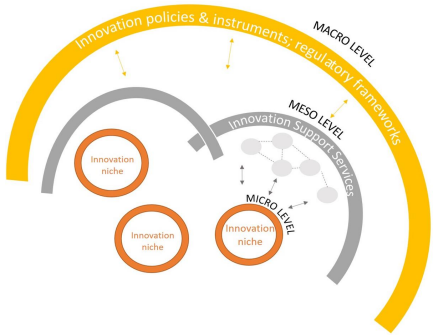
1- Learning Reviews - Overall analysis framework

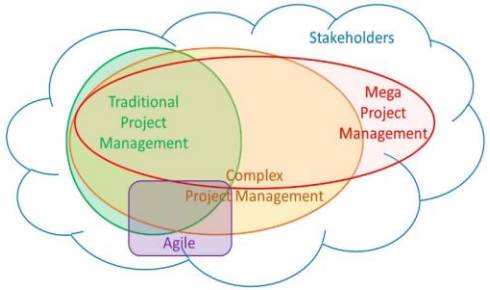
Assumptions :

To make contributions to innovation scaling and impacts, DeSIRA projects should:

1. Contribute to innovation trajectories
2. Be embedded into and strengthen national agricultural innovation systems
3. Be equipped with managerial capacities specific to complex projects







1-Learning Reviews - Overall analysis framework

Methodology

- Meta-data on DeSIRA projects
- Analysis from secondary data (project documents, DLIFT databases)
- Additional data collection on specific dimensions : short on-line questionnaires.

  Ex: innovation survey
- Interviews with project managers on specific dimensions.

  Ex: ranking of « success dimensions » in project management and associated critical capacities.

1- Scaling goals expressed in DeSIRA

Scaling goals		Process to put innovation at scale (scaling strategies)	Ex. of DeSIRA projects
	Doing more of the same things	**Scaling-out :** **geographic duplication and adaptation** *Increasing the number of end-users*	• INV Niger: Management of water resources • Cocoa4future: agroforestry • AcceSS, TAP-AIS (Senegal, Burkina Faso) : label for organic farming
	Doing things better	**Scaling-up:** **consolidation of the on-going changes** *Impacting institutions, laws and policy*	• FAIR-Sahel, ASSET: policies for AE • IDEAS: governance • RAIZ: evidence for policy decision
	Doing something else	**Scaling-deep :** **scaling of innovation capacities in countries** *Impacting relationships, cultural values and beliefs*	• AcceSS, TAP-AIS (Senegal, Burkina Faso) : frugal and social innovation, emergence and organization of innovation ecosystems • TAERA, IDEAS, FO4RI, : portfolios of innovations, farming system design

1- Scaling goals in deSIRA

Scaling innovation « products »

New products, services, processes, arrangements, policies, that have proven to be used, usable and useful in a given context

Technological innovations

Service innovation

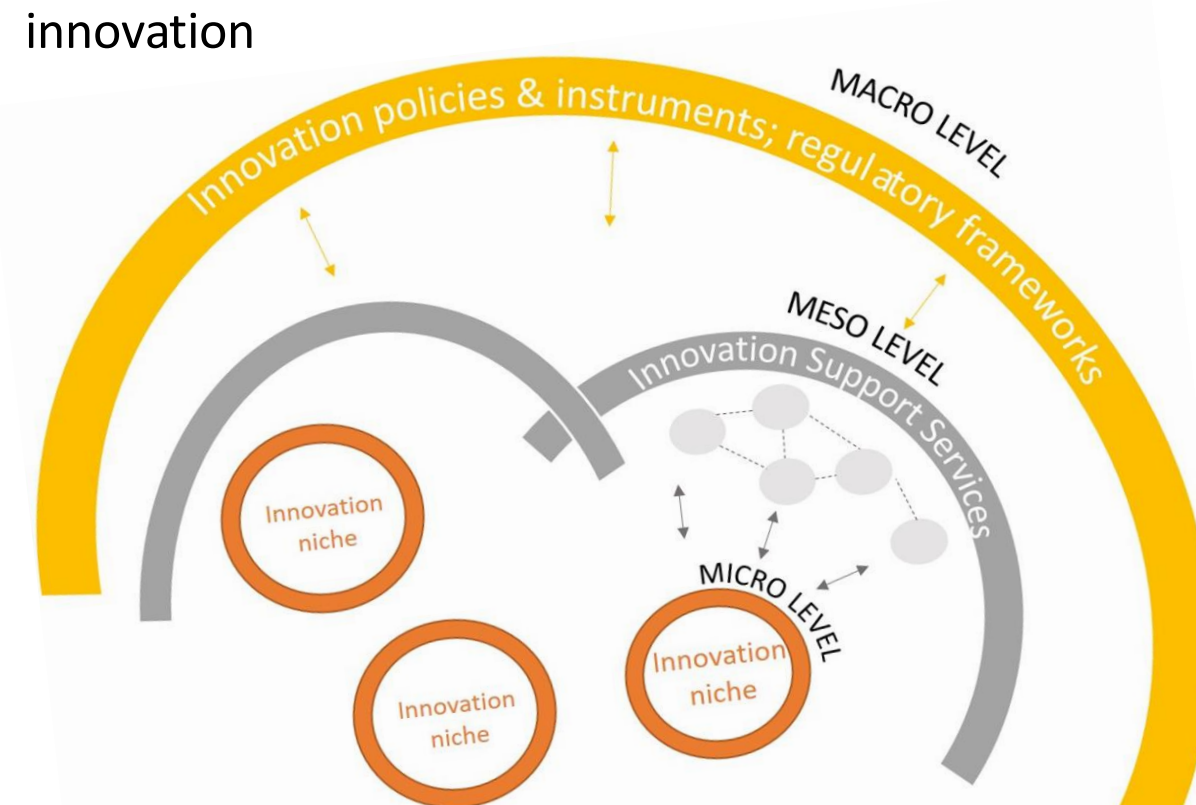
Policy innovations

Organisational innovations

Process innovations

Scaling capacities for innovation

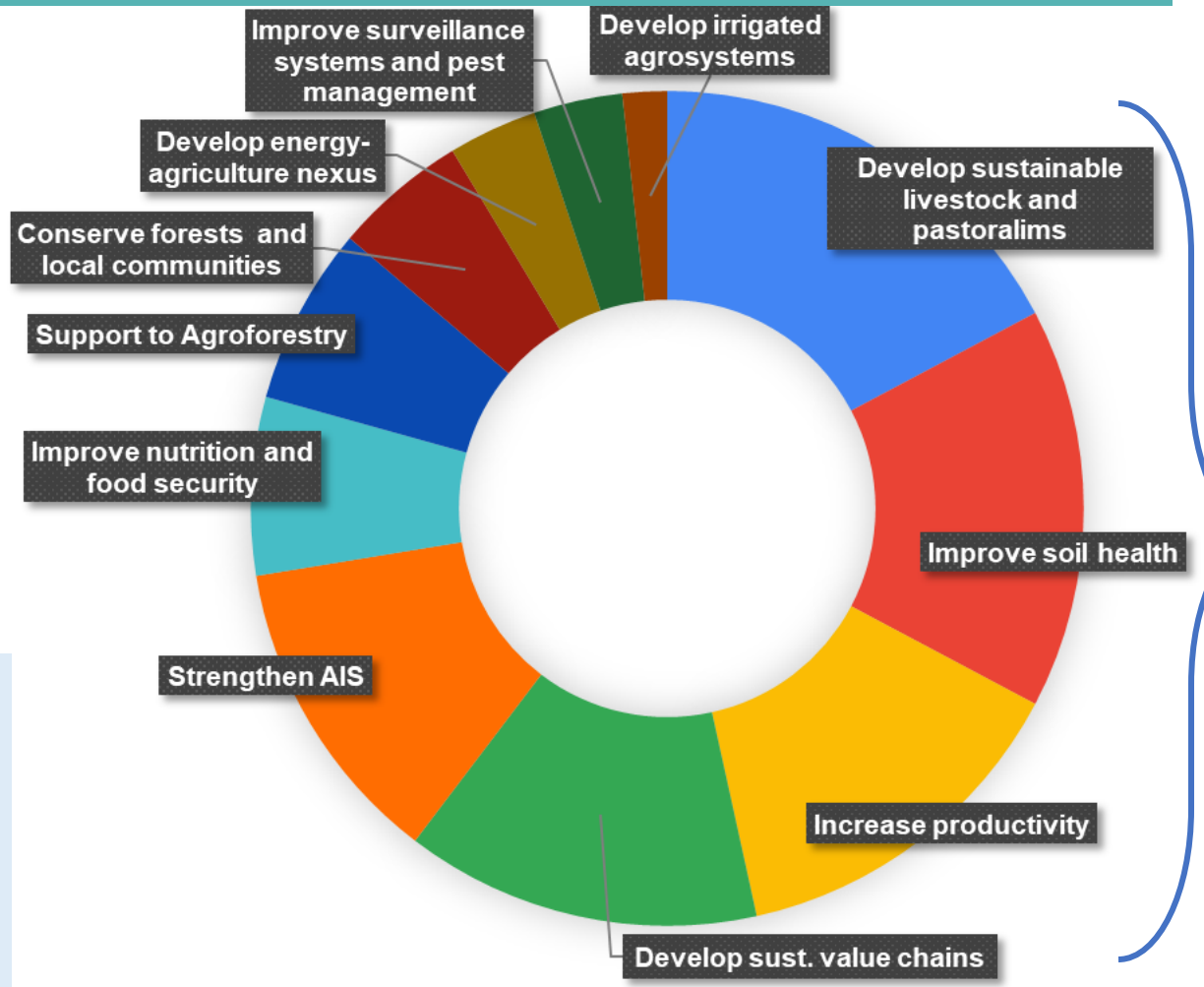
Developing the capacities of all AIS (agricultural innovation system) actors to create more enabling environments for innovation



1- Scaling goals in deSIRA

R1.1. : **diversity -** Projects developed a variety of innovative responses to 4 main problems: Livestock development + improve soil health + increase productivity + value chain development

- 72% have a **technological components**
- 85 % are **multidimensional** innovations (combination of new technologies, new organisations or services and/or new policies)
- 70% as part of a **portfolio of several bundled innovations**

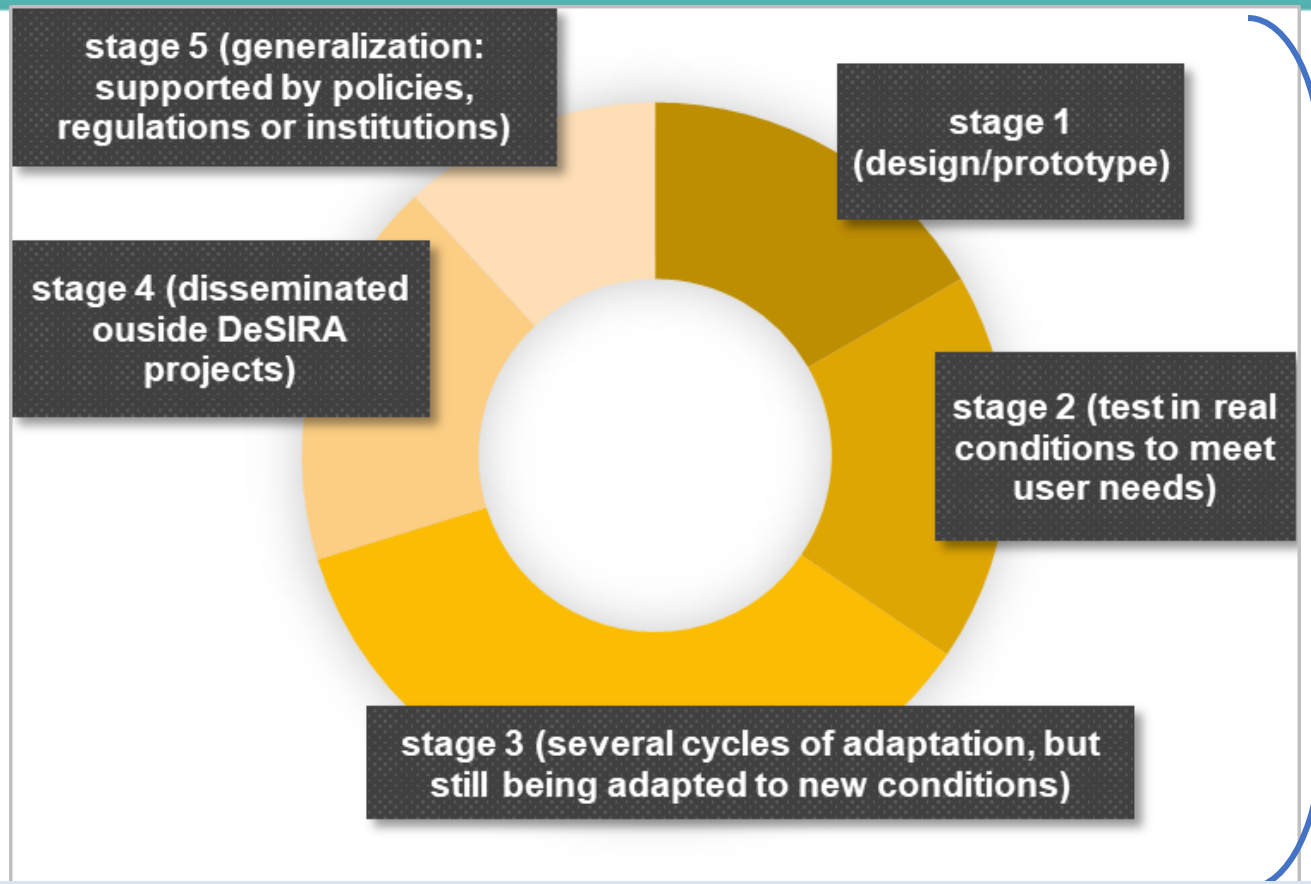


60% of problems addressed

Trends driving the innovation agendas (problems addressed)

1- Scaling goals in deSIRA

R1.2. : majority are **« primary/pilot » exploration & experiments**, that will need to be continued by development partners, when projects will stop



59% of innovations are at early stages

- For **54% of described innovations, projects are the first to work on/develop these innovations** in their intervention contexts (no preexisting trajectories *to their knowledge*)
- And 84% of projects are developing their innovations over **less than 5 years**

2-Scaling in DeSIRA : scaling innovation “products”

Incremental innovations:
Doing things better

Low uncertainties

Cumulated investments in changes

High uncertainties

Breakthrough innovation
Doing things differentely

Initiation

New food transformation processes

Digital tech for advisory services

Local arrangements

Generalization

Development

New crops

Irrigated farming systems

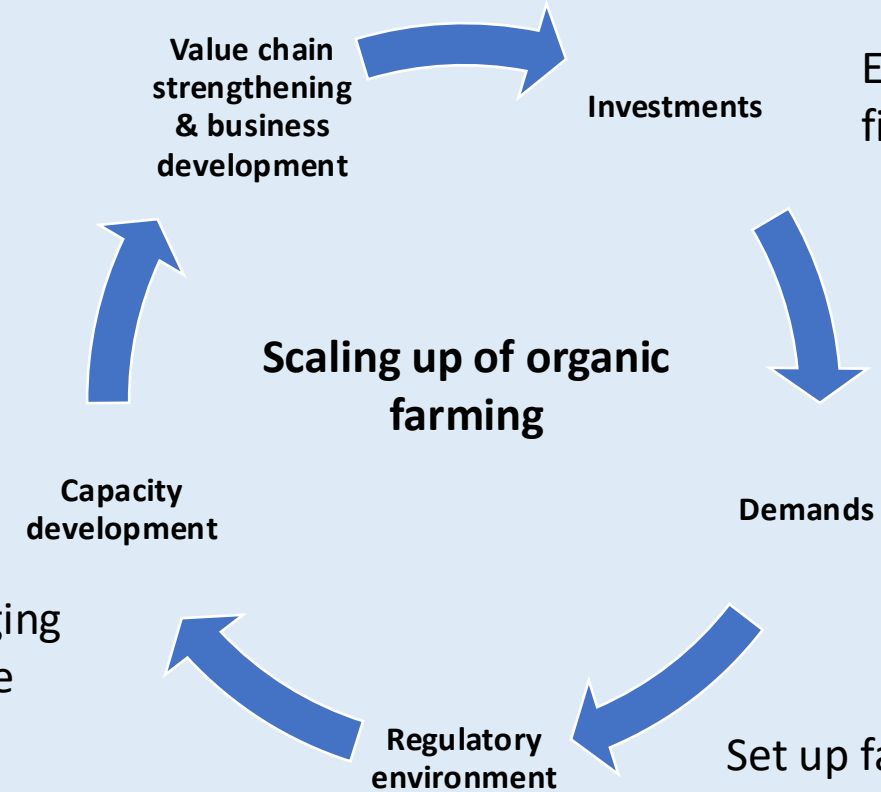
organic farming

Scaling readiness: innovations that have proven to be used, usable and useful in a given context

2-Scaling innovation products: scaling how?

Example of a long term scaling up strategy

Scaling up takes time (typically multiple years) and requires long-term engagement in accordance with a well-articulated scaling vision/goal (which can be adapted over time).



Develop the supply chain of bio-inputs through cross-sector and cross-country partnerships
Open innovation

Explore different avenues for financing and investments

Stimulate demand, policy incentives, education

Set up favorable policies & incentives for supply and demand for innovations

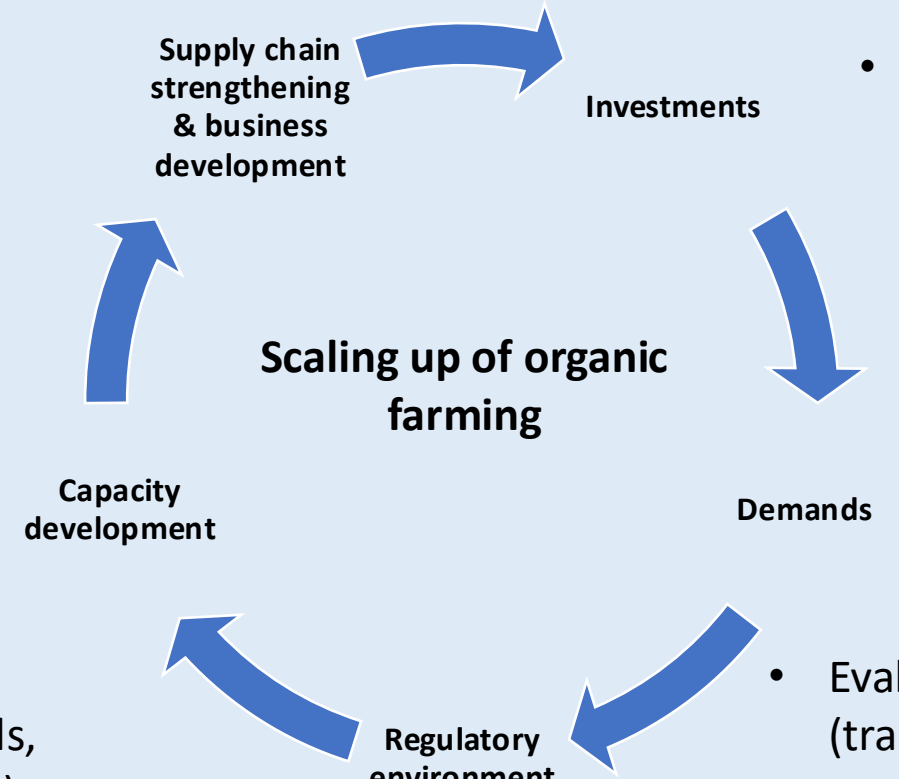
Proactively address emerging skills gaps in the workforce

2-Scaling innovation products: scaling how?

Example of a long term scaling up strategy

Many different contributions from research

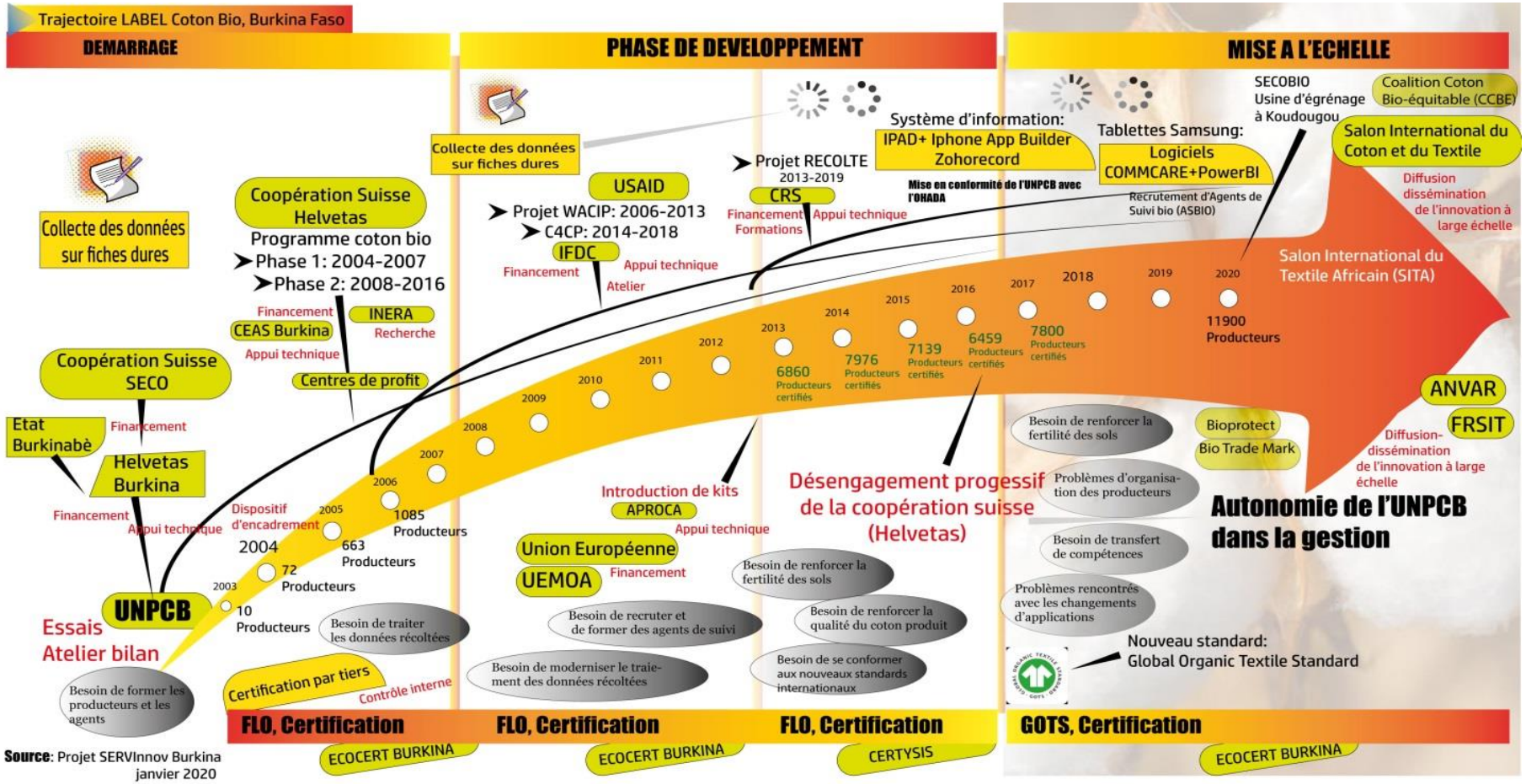
- Formalization and systematization of K (creation of links between local knowledge and research knowledge)



- Support new package of innovations, ie. Innovative funding mechanisms
- Or innovative mechanisms to stimulate demands
- Codification of K (transformation of knowledge into manuals, checklists, training, etc.)
- Evaluations and legitimization (transforming knowledge into “political currency”)

2-Scaling innovation products: scaling how?

Example of a long term scaling up strategy on a TIMELINE



Source: Projet SERVInnov Burkina janvier 2020

Innovation trajectory of organic cotton in Burkina Faso

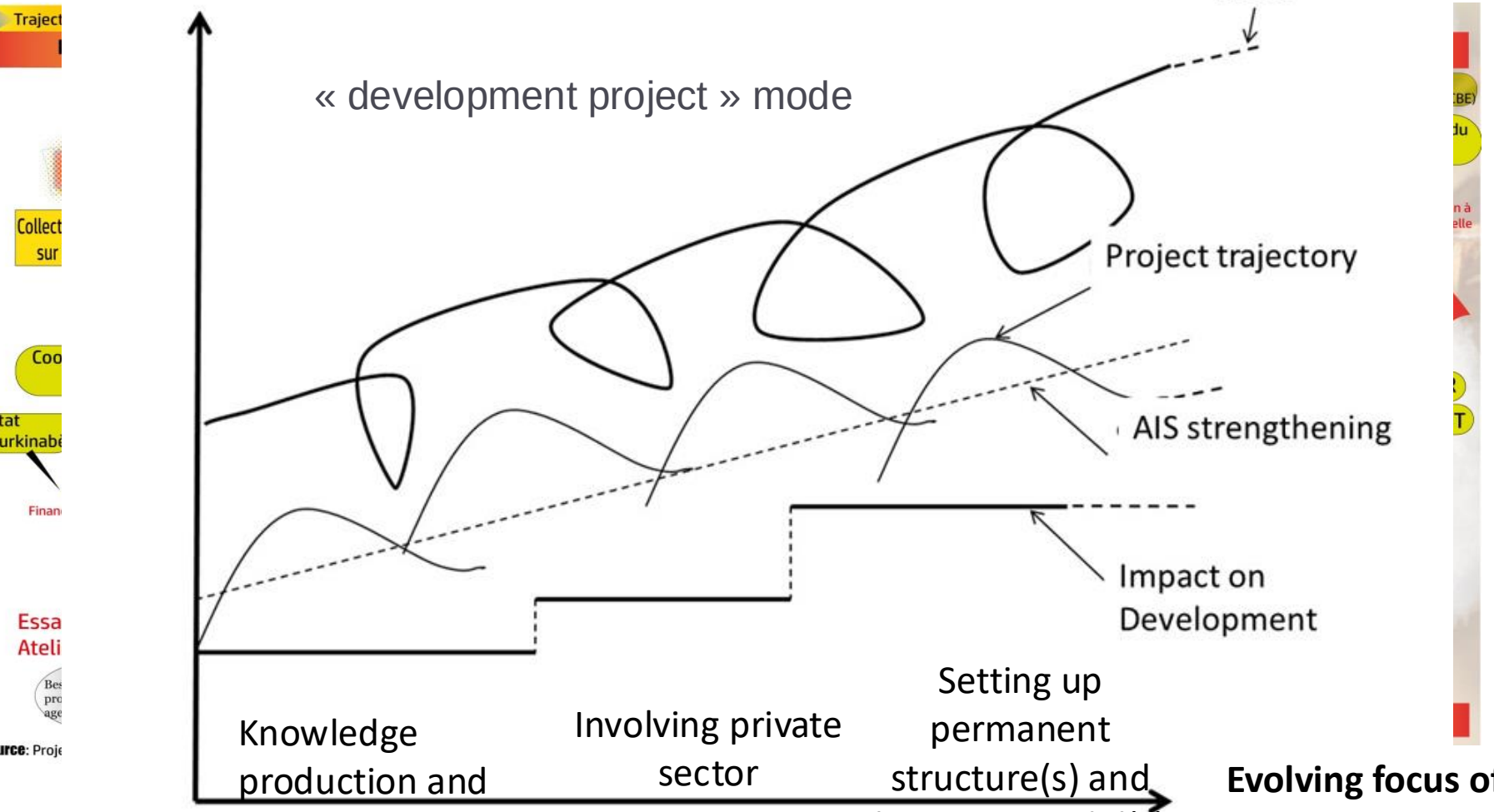
20 years

A dozen of project clusters

Blended financing

2-Scaling innovation products: scaling how?

Scaling with project-based approaches



Orchestrator of the process: HELVETAS → UNPCB (FO)

Innovation trajectory of organic cotton in Burkina Faso

20 years

2-Scaling innovation products: scaling how?

Scaling with project-based approaches

- Transfer the innovation to non-commercial players (State or NGO/association)
- Create a (public or private) economically sustainable structure to scale up the innovation
- Transfer the innovation to existing commercial private sector players
- Set up a commercial distribution network relying on existing private sector players
- Support end-beneficiaries to pay for the innovation

Financing needs in a scale-up process

NB: One scale up path can lead to the combination of 2 to 3 use cases.

Blended funding strategies are necessary…..

…based on financing needs
…which depend on the **nature** of the innovation and associated end-users (a service, a tool, etc.)

…and then matching them with appropriate financing tools (grants, credit , equity)

as grant resources are scarce, they should be limited to what really requires grant funding.

Case 2-Create a (public or private) economically sustainable structure to scale up your innovation.

In which case is it relevant?

- You can associate to your innovation a business model generating revenues, ie you can imagine selling a product or a service to farmers, to other value chain players, to the state or to development partners.
- It would be more efficient to have only one player holding the innovation rather than several ones (high investment costs, complex processes, economies of scale…)
- There's no pre-existing public or private entity that may operate the activities linked to the scale up of the innovation OR you don't want to transfer your innovation to the private sector

Example

- The BIORISK Project has developed and tested healthy planting material in the cassava value chain in 10 countries in Africa. It is now willing to create regional production centers under the form of commercial companies, that could belong to the hosting states. BIORISK thinks creating these companies from scratch is the best solution to place plant material production on a more commercial footing in order to perpetuate the action while guaranteeing the responsible aspect of the commercialized planting material. In this case, in the mid-run, more commercial sources of funding might be available, though grant-based support will be needed to set up the company and work on prerequisites.

Case 5- Support end-beneficiaries in accessing the innovation

In which case is it relevant?

- You can associate to your innovation a business model generating revenues, and you can imagine selling a product or a service to farmers, or other value chain players.
- It is financially interesting for farmers to buy your product or service and the farmer gets return on investment in less than 5 years

Examples

- IRRINN developed an innovative irrigation solution tailored to the needs of smallholder farmers. It selected a national input and equipment provider in Burkina Faso to commercialize the kits. In addition to commercializing the innovation, the private sector partner also proposes advances to the smallholder farmers with repayment schedules tailored to their revenue calendar. At scale up phase, this system is likely to generate funding needs at equipement provider's level that could be covered by local commercial banks.
- The BIOSTAR project equips beneficiary SMEs with innovative bioenergy equipment. To prepare the scale up of the innovation, BIOSTAR is looking for solutions to support access to beneficiary SMEs to national or international sources of funding (equipment loans).

Scaling innovation products: scaling how?

Matching financial needs with appropriate financing tools

What can be financed by non-grant funding?

- Acquisition cost of the product / service for the end-beneficiary
- Working capital costs of the distributors
- Working capital and investment costs of the production units (if they can rely on an established business model and pre-tested market)

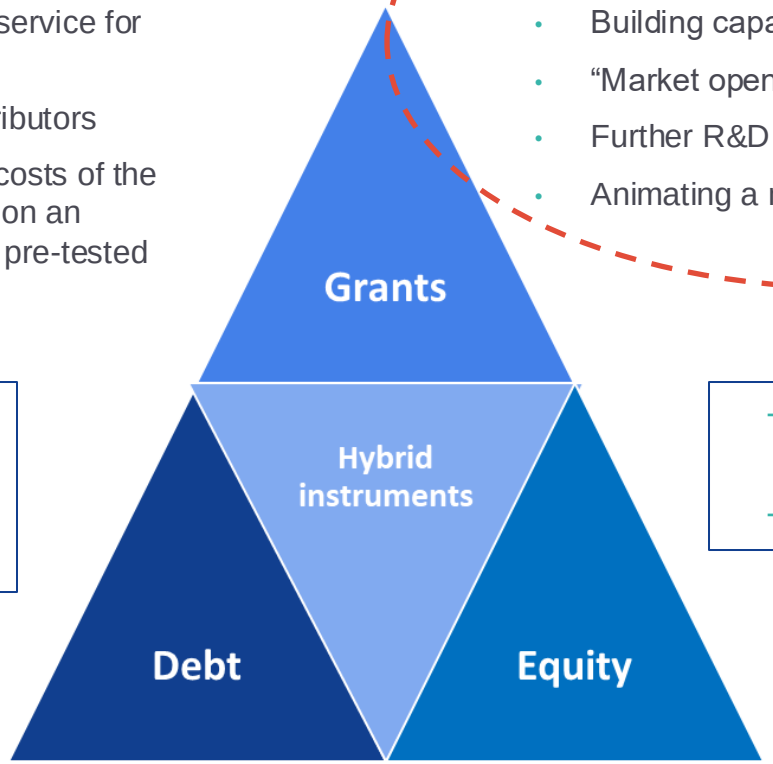
→ Sustainable business model, private or public company, private or public revenue sources

What will need additional grant financing?

- Building capacities of the "scale up" players
- "Market opening" costs
- Further R&D
- Animating a network of players

→ Pre-market entry costs ("prerequisites")

→ Non-economic activities



NB: In many cases, scaling up innovation will require both grant and non-grant funding

2-Scaling innovation products: scaling how?

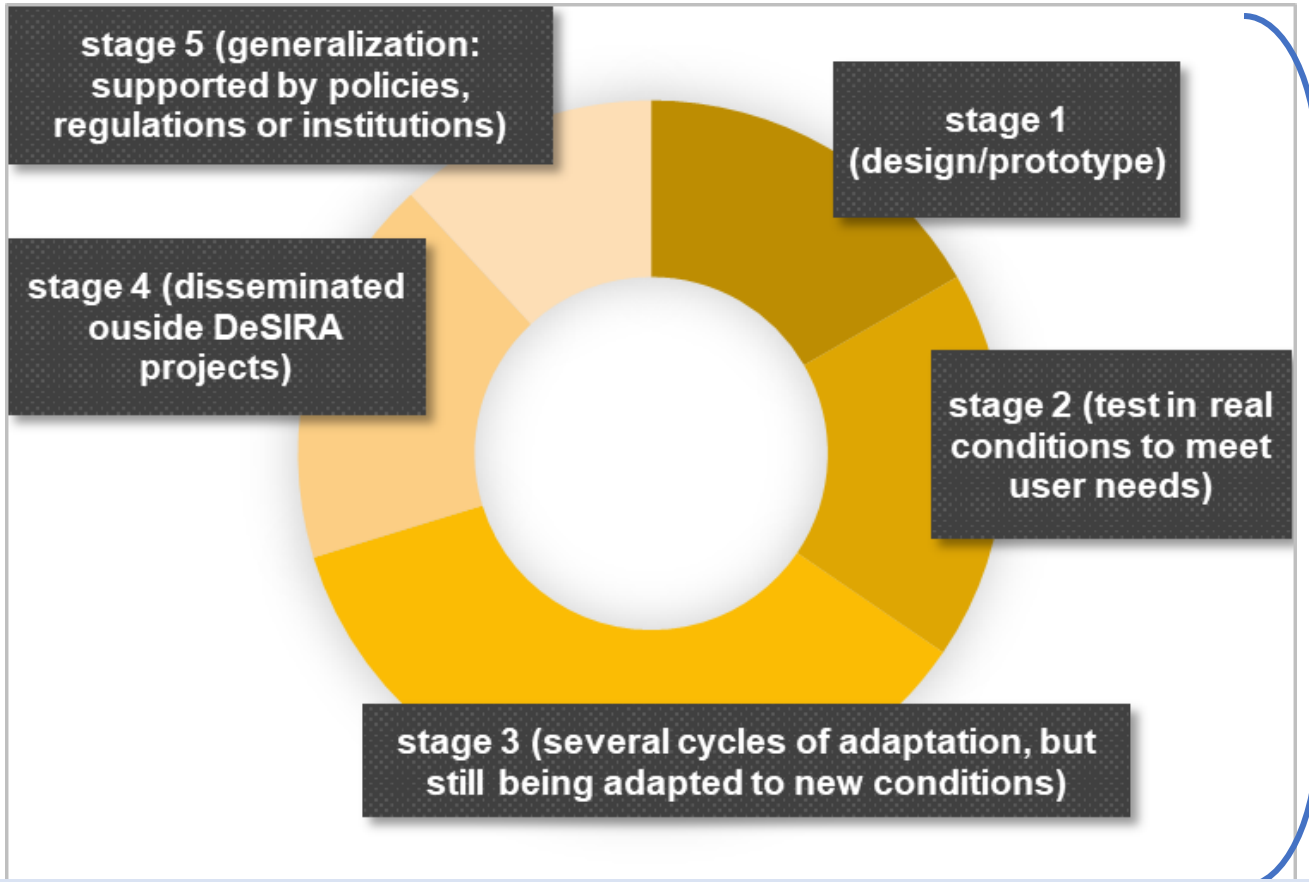
Projects supporting long-term innovation trajectories require:

- ❑ A project portfolio approach, with evolving outputs along the innovation trajectory
- ❑ 1 organisation acting as « orchestrator » of the innovation ecosystem over a quite long period of time
- ❑ Private sector entities in most cases
- ❑ A scaling model
- ❑ An associated financing strategy

→ Quite few DeSIRA projects were able to position their contributions to innovation trajectories
→ The (explicit) design of scaling models started at the end of the project
→ Some projects will be able to create scaling conditions before closure

DeSIRA projects consider themselves at early stages of innovation

R1.2. : majority are cosidered as **« primary/pilot » exploration & experiments**, that will need to be continued by development partners, when projects will stop



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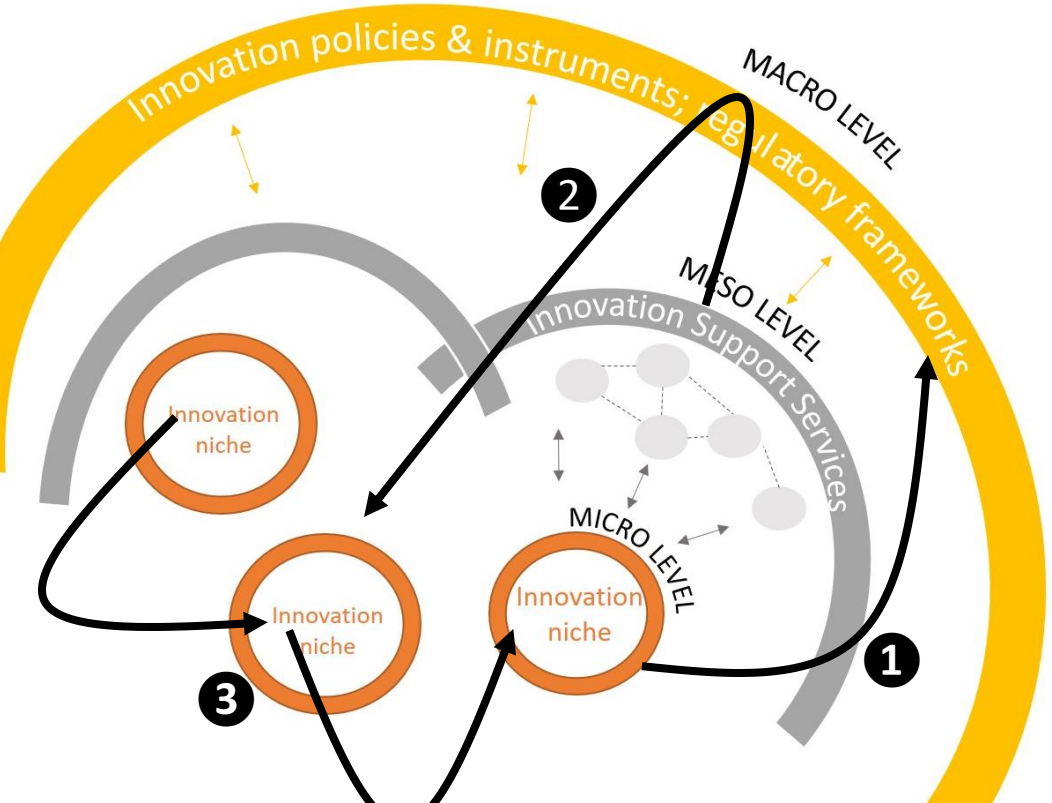
3- Scaling innovation capacities : scaling how?

- 3 types of strategies deployed within AIS with key AIS stakeholders, and 3 levels of transformative intention

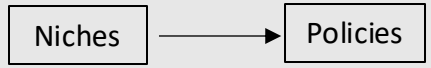
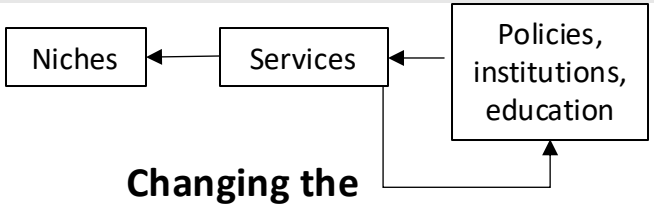


❶ **Niches to policy influence**

❷ **Changing the knowledge regime**

❸ **Nursing seeds for transition**

3- Scaling innovation capacities : scaling how?

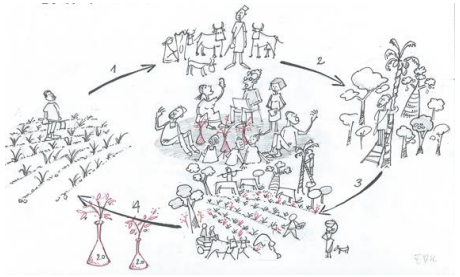
Strategy – levels of intervention		Strategy short description	Knowledge use	Projects	Context
 **Niches to policy influence**	**Strategy 1**	Sequenced change approach from developing niches to influencing policies, fed by evidence and supported by trainings and joint learning opportunities	Evidencing benefits of AE and pathways for change	• IDEAS-Colombia • ABRIGUE • FAIR-Sahel • PRISMA • S&T-Senegal	Countries where AE is accepted/supported at national policy level
 **Changing the knowledge regime**	**Strategy 2**	Mobilizing policies/institutions/higher education, (and private sector) in support of innovation niches, thanks to coordination and engagement mechanisms	Developing a joint understanding and vision for AET	• Prosilience-Benin, Ethiopia • STREAM Mongolia • Asset –Lao PDR, Cambodia	Building on previous work
 **Nursing seeds for transition**	**Strategy 3**	Nurturing innovation niches (learning in/with niches and nursing seeds for transition)	Codesigning local farming systems	• Yayu Coffee • FORI-Brazil • MARIGO, CdI • TAERA-Benin	Countries where AE is not well supported at national policy level

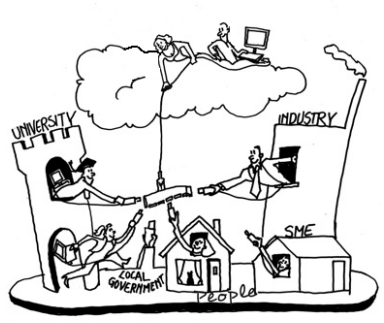
2- Scaling innovation capacities: scaling how?

Example of a long term scaling deep strategies – filling the « missing ties in AIS »

Developing innovation capacities in countries, through the scaling of innovation facilities
Investing in transformative learning and communities of practices

Transfer of technology	In-situ co-design of innovations with end-users	Services in support to innovators	Multi-service platform in support to open innovation processes
E.g.: Farmer Field School	***E.g.: On-Farm Experimentation, model farms***	***E.g.: incubator, B2B, Farmer to Farmer, Fablab***	***E.g.: Innovation campus, Living Lab, Agrilab***





Research responsive to societal needs and research projects integrated into comprehensive scaling strategies

3- Scaling innovation capacities : scaling how?

- R2.1. : 3 types of strategies deployed within AIS with key AIS stakeholders, and 3 levels of transformative intention

  DeSIRA projects **materialized multilevel strategies** for transitions

- R2.2. DeSIRA projects fill the "**missing ties**" of the AIS, both horizontal and vertical. The projects are **full-fledged actors of the national AIS**

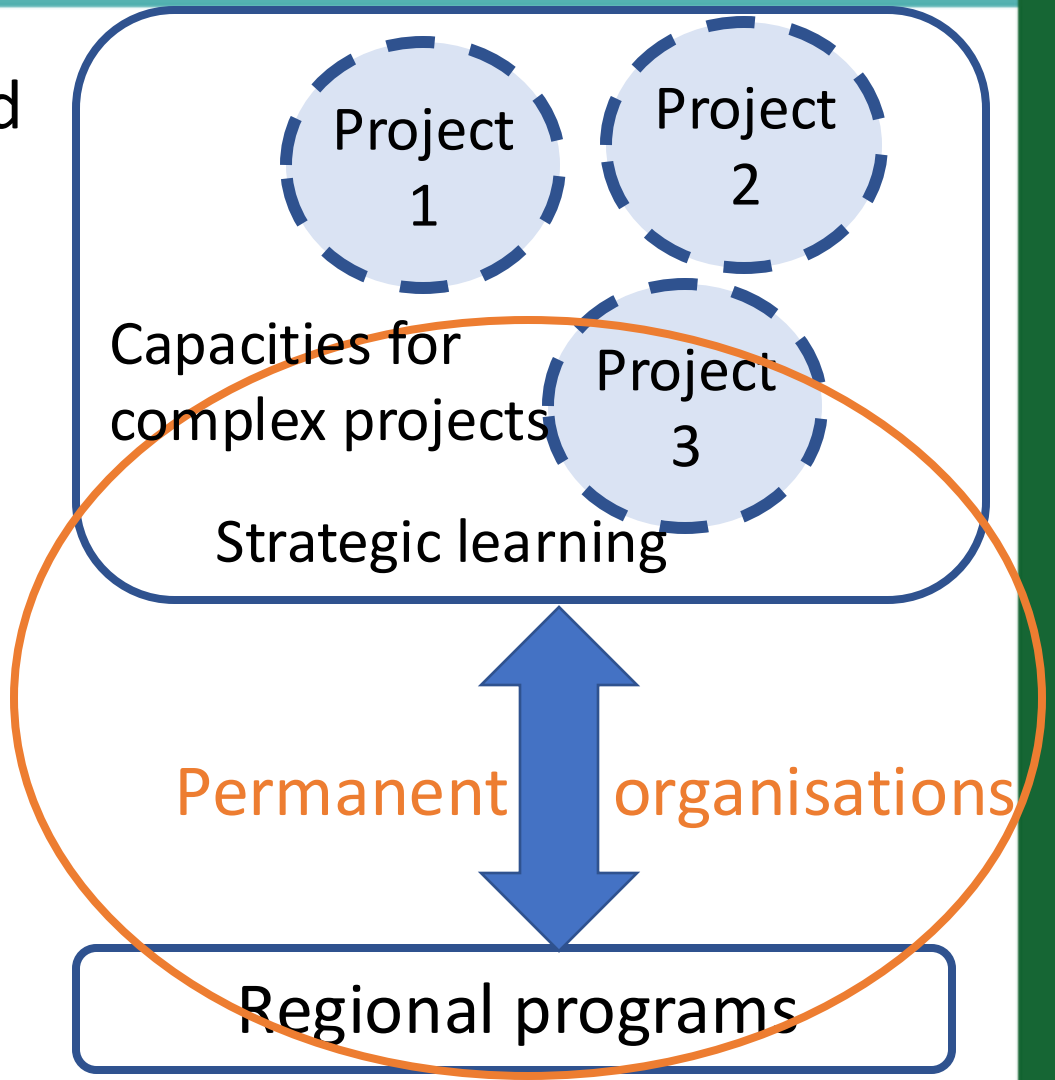
- R2.3 High variety of mechanisms for **stakeholder engagement** based on Participatory Action Research (PAR)

4- Recap- Desira projects' contributions to scaling and impact

1-Contribution to developping and testing **innovation portfolios** in response to complex problems	→	How to maintain these innovation portfolios and make them move to the next phase?
2-Contribution to **strategy formation** and materialize multi-level and multi-country strategies for ST	→	Who can deploy these strategies over longer term?
3-Contribution to AIS strengthening by **filling MISSING TIES**	→	Projects are temporary organizations: how to sustain these ties?
4-Contribution to develop **research capacities** making international research more relevant to country needs and opportunities, and reinforce position as a strategic actor of AIS -	→	How to consolidate, sustain and scale research learnings and practices for I&ST?

4- Recommendations before closure

- ☑ 1-Prepare explicit scaling strategies and scope for the next project generation
- ☑ 2- Ensure organizational learning and identify/empower orchestrator organization .
- ☑ 3-Contribute to program level efforts for strategic learning
- ☑ 4-Include project outcomes into national and sub-regional action plans



Thanks for your attention!

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