

DeSIRA-LIFT Terms of Reference

Expert in funding mechanisms for responsible innovation in Africa - Team Leader

(NKE 3.15, Cat I)

Assignment: Supporting responsible innovation for the transformation of agrifood systems in Africa – *A scoping study on the identification of relevant funding mechanisms*

General information on the team assignment

1. Context and background

The [DeSIRA Initiative](#), funded by the European Commission (DG INTPA) seeks to enhance an inclusive, sustainable and climate-relevant transformation of rural areas and agri-food systems, by linking agricultural innovation with research and education for developmental impacts at scale. It supports actions in low- and middle-income countries (LMICs) to strengthen agriculture and food systems resilience, the relevance of the national and regional innovation systems, and the coherence and efficiency of their agricultural public research and extension services related to climate change adaptation.

[DeSIRA-LIFT](#) is a service project (June 2021 – May 2024) to the European Commission (EC), Directorate General for International Partnerships (DG INTPA) with the main objective to enhance the impact of the DeSIRA Initiative by providing (on-demand) services to DeSIRA project holders and partners. DeSIRA-LIFT includes three service areas aligned to the three DeSIRA Pillars: Service Area 1 supports country-led DeSIRA projects to enhance their impacts on climate-oriented innovation systems in line with more sustainable food system transitions. Service Area 2 supports the Comprehensive Africa Agriculture Development Programme (CAADP) ex-pillar IV organizations in their Agricultural Knowledge and Innovation Systems (AKIS) related roles. Service Area 3 supports policy makers on themes related to agricultural research for development (AR4D) and innovation policies and programming. DeSIRA-LIFT is implemented by member organisations of Agrinatura (CIRAD, ISA, NRI, SLU, WUR) and EFARD (COLEAD).

2. Rationale of the assignment

There is a global agreement on the difficulties faced by agricultural and food systems, such as food and nutrition insecurity, inequality, the necessity for job creation, climate change, loss of biodiversity, and the high demand for resources. Additionally, there is increased shared understanding of what food system outcomes need to entail to achieve SDGs and what innovation gaps still exist. Innovation involves the introduction and implementation of a new idea or concept within an economic and social context. It could be at farm level with new agricultural or management practices, at value chain level with new processing or marketing methods, at organizational level addressing the way organizations deliver support services to farmers or innovators and cooperate with other organizations, at territorial or landscape level with new natural resources management practices, or at policy level with new rules, agreements and/or norms. The innovation could be supported by *individual actors* acting as a champion (young or new entrepreneurs, start-ups, emerging firms or businesses) or through *collective innovation* based on multi-stakeholder approaches (even if objectives and outcomes may not yet be clearly defined).

Consensus concerning the processes of innovation and the types of innovations that should be encouraged, does not exist. This is because innovations can have varying effects, either positive or negative, depending on the dimension (economic, social, environmental) or the perspective of the stakeholders involved (civil society, private or public sector, academia). Ensuring that innovation is responsible¹, and oriented towards sustainable development, fairness, and inclusivity, is a crucial concern for achieving (a) green and equitable agri-food systems transformation(s).

¹ European Commission (2011). Horizon 2020 – the framework programme for research and innovation. Brussels

The type of support provided varies depending on the stage of innovation. Four -sometimes five- phases or stages are emphasized: 1) the ideation phase (generation and evaluation of ideas), 2) the prototyping, piloting or testing phase to make necessary improvements, 3) development phase to test and adapt in real conditions the innovation (which includes bringing the innovation to the market), 4) the generalization phase bringing the innovation at scale including ongoing, adaptation, as well as 'embedding' of the innovation. Between these phases *continuous feedback loops* exist. The stages mentioned are consistent with the Technology Readiness Level (TRL) framework.

In order to put *greater emphasis* on the actors involved *and the social processes related to innovation*, this study addresses the innovation services as indicated in box 1 below as it aligns more closely with the systemic innovation model, as opposed to the linear transfer of knowledge and technology model. This study focuses in detail on the '*diversifying funding mechanisms*' service (see point 4 of Box 1 below).

Responsible Innovation (RI) is a concept that has gained increasing attention in the scientific community in recent years. According to the European Commission (2011) RI entails "taking into account the societal, ethical, and environmental implications of research and innovation in order to ensure that their outcomes are desirable and sustainable". RI recognizes, therefore, that innovation should not only focus on technological progress and economic growth but also consider broader societal implications and address potential risks and ethical considerations.

RI could be assessed with *environmental criteria* such as addressing climate change, biodiversity loss, soil health, water security, etc.; *social criteria* like inclusivity (small farmers, SMEs, urban marginalised communities, etc.) and gender; and *economic criteria* like job creation, living income, etc.

Box 1. Supportive innovation services

The system in which innovation processes are embedded affects their development. Structural, market, regulatory or financial factors - external to the responsible innovation process - can hinder or enhance the innovation (Long et al., 2016) ² . To overcome existing barriers, four generic services are considered key to support responsible innovation:	
1. <i>Networking, facilitation and brokering</i>	The reason why services related to networking, facilitation, and brokerage are essential in all stages of the innovation process is twofold. Firstly, coordination among innovation actors is necessary for innovation to succeed. Secondly, because the organization of services remains a challenge, supporting the informal or formal networks of actors is crucial.
2. <i>Strengthening actors' capacities to innovate</i>	Innovation actors are the driving force behind transformative change. Therefore, providing key services to strengthen their ability to innovate at various levels (individual, organizational, and institutional levels), is crucial. These services may include <i>technical</i> and <i>functional</i> training to enhance their innovation capacities.
3. <i>Knowledge for action</i>	Because <i>new</i> knowledge (generation) for action is an important precondition of innovation, there is a need to use and valorize both indigenous or local knowledge as well as scientific knowledge. In this sense research, whether applied or fundamental, could play a key role in contributing to the innovation process.
4. <i>Diversifying funding mechanisms</i>	A variety of funding mechanisms is required due to the varying financial requirements of different stages of innovation. For instance, seed money may be necessary for testing an idea, conducting feasibility studies or developing a proof of concept; risk capital may be required for prototyping and experimentation; and additional risk capital funding, loans or financial guarantees may be needed for scaling up. To determine the appropriate cost-sharing mechanisms and incentives between public and private stakeholders, factors such as the phase of innovation, the level of underlying risk, and the distinction between public and private good production must be taken into consideration.

² Long, T. B., Blok, V., & Coninx, I. (2016). Barriers to the adoption and diffusion of technological innovations for climate-smart agriculture in Europe: evidence from the Netherlands, France, Switzerland and Italy. *Journal of Cleaner Production*, 112, Part 1, 9-21.

Funding mechanisms for Responsible Innovation: current state of affairs

There is a wide range of interventions that aim to support innovation through various funding mechanisms. The specific intervention or *funding mechanism* used depends on various factors such as the theme being addressed, the level of coverage (i.e., country, region, or global), the target recipient of support (e.g., type of entrepreneur, collective innovation, support for services like incubators or accelerators, etc.), the phase of innovation being supported, the type of funding (e.g., seed, award, grant, debt, etc.), the type of additional support (e.g., technical assistance, brokering, etc.), the size of the initiative (i.e., total budget, number of projects), and the origin of the funding for the initiative (i.e., public or private donors, philanthropy, etc.). Some key features of these interventions are:

- Many funding mechanisms to support innovation are not linked to a sector (health, agriculture, etc.). However, funding mechanisms for the agricultural sector in Africa (production, processing, trading or service provision) need to be *specific* due to the often small size of firms (farms, processing units, etc.) and the high risks for investors.
- Many funding mechanisms support innovation at the earlier phases (idea phase, development, piloting or testing phase) mainly through R&I projects or at the production phase with loans and guarantees. However, there is still a missing '*middle*' often with difficulties to provide 'smaller' funding amounts (or: 'tickets') to small- and medium-sized firms, making it difficult for the vast majority of small-scale actors to access funds (e.g., for SMEs or Farmers' Organisations). Their financial investment needs are often too large for microfinance, but too small -and seen as too risky- for the formal banking sector.
- Funding mechanisms include a diversity of support services often for (i) individual innovation (entrepreneurs, start-up, emerging businesses) as well as (ii) support services to strengthen the innovation ecosystems (incubators, accelerators). There are less opportunities to support *collective innovation*.
- The institutional sustainability of interventions to fund innovations are questioned as the funds are often provided by the international cooperation community (donors), which is a particularly sensitive issue in Africa.

Funding mechanisms for innovation: current knowledge gaps

Despite the increasing awareness and advancements in addressing challenges such as access to finance, still knowledge gaps exist concerning the specific funding mechanisms being implemented in Africa (the key focus area for DG INTPA) regarding (i) responsible innovations according to a set of criteria and (ii) the support to innovation at stage 2 (the prototyping) and stage 4 (the development)³.

More information is particularly needed on (i) funding mechanisms supported by **national or regional African organizations or governments**, which go *beyond* donor-funded projects (including those with regional, continental or global coverage); and (ii) interventions that enable access to finance for **responsible innovation** (including **collective innovation**) by e.g., farmers, farmer organizations (FOs) and/or other civic-driven initiatives or networks.

A *funding mechanism* refers to a method, process or a system to allocate and distribute financial resources. A funding mechanism typically outlines the rules, procedures, and criteria for accessing funds, determining eligibility, and evaluating proposals or applications. It may involve the establishment of funding programs, grants, contracts, loans, scholarships, or other financial instruments tailored to specific purposes or types of innovation. It is therefore not the same as a *funding type*, e.g., grants, loans. However, the distinction between type and mechanism is not a 'hard' one, as funding types are to be accessed or applied through a specific process and under specific conditions. Funding mechanisms can be temporary.

3. Beneficiary of the assignment

The main beneficiary of this study is DG INTPA (F3). With the results of this study, INTPA F3 aims to identify and describe *the range of interventions and mechanisms/processes* used to finance innovation in the agri-food sector in Africa along the stages or phases of innovation as described above.

The findings from this study will be used for:

- informing of and engaging with on-going DeSIRA projects, e.g., to enrich their exit strategies, with different and complementary modalities to fund responsible innovation at scale;

³ if it could be difficult to clearly identify the stage of development of one specific innovation

- informing future DeSIRA+ projects (and stakeholders), e.g., to assess the opportunity to co-fund project activities using other innovative funding mechanisms to enhance sustaining of responsible innovations;
- addressing incoming requests of e.g., farmer movements, farmer organisations, community initiatives or producer groups on finding (innovative) funding opportunities;
- engaging with the CAADP-XP4 organisations and AUC on (expanding) modalities to fund innovation in Africa.

4. Scope and results of the assignment

Objective

The objective of the study is to identify and characterize the diversity of mechanisms (i.e., processes and interventions) *to fund innovation in Africa at different phases of the innovation process.*

Scope

The study will specifically focus on national and regional funding mechanisms *in Africa*. The analysis should take into account the following:

- Funding mechanisms at national or regional level to support innovation *mainly* at the first stages of the innovation
- The description of the funding mechanisms, including the thematic areas addressed (e.g. soil health, digitalisation, etc.), the level of coverage (national, regional, local), the target (type of entrepreneur, collective innovation, support to services such as incubators or accelerator, etc.), the phase of innovation supported, the type of funding (seed, award, grant, debt, etc.) including the size/amount of the funding, the type of additional support (technical assistance, brokering, etc.), the size of the initiative (total budget number of projects), the origin of the fund of the initiative (public or private donors, philanthropy, blended finance, etc.), the procedure to access the funds, the criteria to select supported projects, the evaluation and monitoring system, the management of Intellectual Property Rights, and the governance (including the diversity of actors represented).
- The participation and role of specific innovation actors as beneficiaries and/or providers of services (research, farmers and farmers organisations, private sector, public sector, informal actors) in the funding mechanisms;
- The coordination (or lack of coordination) and consistency between different existing funding mechanisms along the innovation phases (gaps, missing funding tools, missing key actors)
- The sustainability of the funding mechanisms (levees of products/activities, public support, etc.), with a distinction between direct funding (funds given to innovators) and indirect funding (support services available such as fablab, incubators, public research, training, etc.)
- The integration/coherence of the funding mechanisms with national innovation policies, including research policies, agricultural policies, rural advisory policies, sectorial policies, etc.

To limit the scope of the study, it should focus on:

- The agri-food sector in Africa;
- Responsible innovation and innovation for development (with, if possible, a specific focus on agroecology);
- First phases of innovation (ideation, prototyping, development) or, in other words, "ideas *until* entering the market" and in relevant cases after entering market;
- *Innovative* or *original* funding mechanisms which are *not* well known (yet) and that support:
 - (i) individual innovation (entrepreneur including innovative farmers, start-ups, SMEs and FOs); *and/or*
 - (ii) collective innovation with multistakeholder approaches (natural resource management, value chains, etc.) *and/or*
 - (iii) support services to innovation (incubator, accelerator, platforms, facilitators, etc.)
- Funding mechanisms *embedded in* national or regional organisations, avoiding:
 - Project-based interventions (without credible sustainability beyond the project)
 - Funding mechanisms at global level managed and funded by donors, philanthropies, private sector (already analysed by DG INTPA, unit F5); however, the funding source may still include 'external' sources;

- Farmers' participation, i.e., farmers participating in the governance mechanisms and as potential beneficiaries and *farmer-led innovation*. Note that the funding mechanisms can facilitate the innovation by e.g., Farmers' Organisations but does not necessarily have to be directly 'accessed' by the Farmers' Organisations themselves.

Results of the assignment

The study needs to result in the following outputs:

- A (refined) typology of funding mechanisms for responsible innovation in Africa, based on the criteria for Responsible Innovation;
- Finetuning of the criteria for funding mechanisms for Responsible Innovation by gathering lessons learnt on 'what worked' and 'what didn't work';
- An overview of funding mechanisms that contributed to making innovations more sustainable and responsible in Africa. The overview needs to include *examples* of funding mechanisms that triggered and/or contributed to responsible innovation. The list of examples in Africa (regional or national) will also further build/refine the typology.

In close cooperation with DG INTPA it may be decided **to extend** the assignment, by carrying out a 'deep dive' into a selection of the most innovative Funding Mechanisms for Responsible Innovation in Africa.

The *potential* deep dive part of the assignment will then include:

- An extended analysis (by means of additional interviews) of a selection of the funding mechanism examples (alternative: few countries), including addressing questions such as,
 - What are the criteria for RI and where did the funding come from?
 - Under which *conditions* did the funding mechanism work for Responsible Innovation: what are supporting and limiting factors and lessons learnt?
 - What was the enabling institutional setting ensuring the sustainability of the funding mechanism?

5. Approach and methodology

The DeSIRA-LIFT team will provide a draft framework/overview for the assigned expert(s) that links examples of funding mechanisms with Responsible Innovation. This overview will include an initial *typology* of funding mechanisms (including 5 or 6 categories) that needs to be further refined based on the outcome of the rapid analyses (see below). The recommended methodology and study activities include:

First phase of the assignment

1. A *rapid* analysis of the existing literature on funding mechanisms to support responsible innovation in order to introduce the analytical framework for the study *including* insights for building a typology of funding mechanisms.
2. A *rapid* analysis of funding mechanisms supporting innovation in the agrifood or agricultural sector at regional level (Eastern, Western, Southern Africa and Northern Africa) with a short description of each innovative funding mechanism to support innovation (a few examples are expected). Preferably, the rapid analysis and mapping also provide insight in innovation policies for funding and supporting responsible innovation.
 - o Desk review (reports and on-line information)
 - o Interviews with Regional Economic Communities (RECs) like ECOWAS, SADC, COMESA etc. and with FARA, CORAF, CCARDESA and ASARECA
3. A *rapid* analysis and mapping of the innovative funding mechanisms to support innovation in the agrifood sector/agriculture at country level in a selected number of countries (8 to 10) with a short description of each innovative funding mechanism to support innovation (around 20 relevant examples could be expected). Preferably, the rapid analysis and mapping also provide insight in innovation policies for funding and supporting responsible innovation.
 - o Desk review (reports and on-line information)

- Key informant interviews (international organisations, African organisations, key informants per country, etc.)
4. Proposition of a typology of funding mechanisms (incl. a reasonable number of categories) ensuring a set of new or innovative funding mechanisms supporting responsible innovation in Africa with concrete examples. *Preferably examples are spread across the categories of the typology of funding mechanisms and countries. A structure to describe the examples and provide specific information will be agreed upon.*
 5. Reporting Phase 1
 - inception report (after the literature review)
 - draft report on results of phase 1

Second phase of the assignment

(Starting after the draft report of phase 1 has been submitted)

6. Deep Dive into the most innovative (and sustainable) Funding Mechanisms for Responsible Innovation in Africa.

From the list of examples:

- Select most innovative funding mechanisms (alternative: few countries)
 - Description of the criteria for RI that have been addressed;
 - Description of the conditions under which the mechanisms are operating;
 - Description of the enabling institutional setting behind the selected funding mechanisms;
 - Description of lessons learnt
- Desk review
 - Interviews of key actors involved in/linked to the funding mechanism
 - Reporting
7. Organisation of webinars to share results especially with FOs, CAADP-XP4 organisations and the AUC
 8. Reporting Phase 2
 - Final report, including phase 1 and 2
 9. Developing a Policy Brief
 - Format and size to be discussed

6. Organisation and duration

The total duration of the study, includes a maximum of 75 expert days spread over 6 months, starting in September 2023 (See timeline below for specific details).

The assignment will be conducted with two experts: one senior expert (NKE 3.15) supported by a second expert (NKE3.16). The expert NKE3.15 will operate as team leader.

The proposed division of days between the experts is as follows:

- NKE 3.15 Expert in funding mechanisms for responsible innovation (Cat. I), team leader for the study process (including the Inception Report, Report, deep dive and policy brief): **40** days
- NKE 3.16 Expert in funding mechanisms (Cat. III), supporting the collection of data at country level and conducting interviews on request: **35** days

Activity	Days NKE 3.15	Days NKE 3.16
1. Rapid literature review	3	
2. A <i>rapid</i> analysis of funding mechanisms supporting	3	5

innovation		
3. Mapping of innovative funding mechanisms	10	20
4. Development of a typology of funding mechanisms	3	
5. Reporting phase 1	3	
6. Deep dive	5	10
7. Webinars to present findings	5	
8. Reporting phase 2	5	
9. Policy Brief	3	
TOTAL DAYS	40	35

A team of experts of DeSIRA-LIFT will support the study. In addition, DeSIRA-LIFT will liaise with relevant DeSIRA projects already addressing certain funding mechanisms (e.g., the TAP-AIS project).

The operational arrangements for the scoping study on identifying relevant funding mechanisms include, in addition, the setting-up of a Steering Group with a limited number of members (ca. 5 persons) and with representatives of FOs, FARA, FAO, INTPA F5 and INTPA F3. This Steering Committee will provide advice and act as 'sounding board' for the study team, but will also monitor progress and share results. Therefore, one of the deliverables includes a policy brief.

7. Deliverables

Deliverables for the study include:

1. Background documentation and reference documents, including the refined typology of funding mechanisms for responsible innovation
2. 'Database' with examples on funding mechanisms for responsible innovation
3. A short inception report (size and format will be discussed with DeSIRA-LIFT team) to introduce the specific methodology for the scoping study
4. A *draft* report for phase 1
5. A final report (size and format will be discussed with DeSIRA-LIFT team) for phase 1 and 2
6. Presentation (PowerPoint) to be used to share results
7. A webinar to share the results (in collaboration with DeSIRA-LIFT and DG INTPA)
8. Policy brief (to be specified with DG INTPA and the DeSIRA-LIFT team) summarizing the key findings, lessons learnt and policy recommendations (and or arguments) for the application of new/innovative funding mechanisms. The policy brief will be developed in close consultation with DeSIRA-LIFT Key Experts (SA3 Leader and Project Director).

The deliverables are to be provided according to the timeline provided below.

8. Timeline

Duration: 6 months
 Start: September 2023
 End: February 2024

Specific NKE 3.15 Tasks

Tasks

- Act as Team Leader for the scoping study on funding mechanisms for responsible innovation in Africa.
- Develop methodology and supervise data collection and analysis.
- Act as the main interlocutor between the team of experts and DeSIRA-LIFT and DG INTPA.
- Quality assurance of deliverables.

Deliverables

- As specified under section 7

Reporting

The Expert (NKE 3.15) will report to the DeSIRA-LIFT SA3 leader and Project Director, including for the validation of his/her timesheets. The expert will work closely with the other expert (NKE 3.16).

Duration of the assignment

The assignment includes a maximum of **40** working days (see section 5) in September 2023 – February 2024.

The team of experts is expected to submit a draft report to DG INTPA by 15 December (for Phase 1) 2023, a final report (for Phase 2) and policy brief to be submitted by the end of February 2024.

Location of the assignment

The assignment will be home-based and includes a desk review.

Required qualifications and experience

The expert will have:

Qualifications and skills

At least MSc/MA-level in a discipline related to Agriculture, Food and Nutrition Security, Agronomy, Rural Development, International Development, Sociology, or, in its absence, equivalent professional experience.

General professional experience

At least 12 years' professional experience in areas directly relevant to international development, innovation with a social science perspective, knowledge and innovation systems, or likewise.

Specific professional experience

- At least 5 years' professional experience in areas directly relevant to agriculture in an international setting, including knowledge of funding mechanisms / access to finance in sub-Saharan Africa.
- Experience in applied research in agricultural finance and development in Low- and Middle Income Countries, preferably in Africa.
- Experience working in consultation with professional organizations (farmer organizations, NGOs, private companies, research centres, etc.) and/or international organizations and / or multi-stakeholder processes.
- Understanding of financial concepts (financial analysis, budgeting, forecasting, and financial modelling) will help in assessing the financial viability and potential risks associated with funding mechanisms.
- Experience in business development, strategic planning, and market analysis is valuable for identifying funding opportunities and aligning them with responsible innovation.
- Understanding of developing business models in the agricultural sector in Africa will aid in evaluating the feasibility of funding mechanisms for specific sectors.

- Familiarity with project management methodologies and tools is important to effectively identify and gather lessons learnt and assess the appropriate funding mechanism to support responsible innovation.
- A thorough knowledge of the funding landscape, including government grants, loans, venture capital, angel investment, crowdfunding platforms, and other alternative funding sources, is essential.
- Understanding requirements, application processes, and evaluation criteria of various funding mechanisms will be beneficial.
- Awareness of legal and regulatory frameworks related to funding mechanisms is a pre.

Soft skills

- Ability to work in a team and in a multicultural context.
- Motivation, self-direction and pro-activeness.
- Methodological rigour, priority management and organisational skills.

Language skills

- Excellent writing and oral presentation skills in English.
- Working knowledge in French is an advantage.