

DeSIRA-LIFT Terms of Reference

Expert in Agricultural Research and Innovation Strategy processes (NKE 2.6, Cat I)

Support to RUFORUM in the review of national science, technology, and innovation landscape for translation of university research and innovation into enterprises

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 2025) 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).

This assignment is commissioned under Service Area 2, in close collaboration with the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM). RUFORUM is a Pan-African network of 170 predominantly agriculture teaching and research universities in 40 African countries. RUFORUM's mission is to strengthen the capacities of universities to foster innovations responsive to the demands of small-holder farmers through the training of high-quality researchers, the output of impact-oriented research, and the maintenance of collaborative working relations among researchers, farmers, national agricultural research institutions and governments.

2. Rationale of the assignment

Africa's working-age population is growing at 3% per annum and projected to generate approximately 450 million young people ready to work by 2035, many of which may not find suitable jobs. Moreover, currently, Africa's economy creates about 3 million jobs annually compared to between 12-15 million job requirements¹. Most of these jobs will be in the private sector since public sector jobs will not match the burgeoning number of skilled youth entering the workforce. To contribute to job and wealth creation, [The Regional Universities Forum for Capacity Building in Agriculture \(RUFORUM\)](#) is supporting several initiatives. Firstly, it is facilitating staff and students from its member universities to create enterprises from their research outputs to employ themselves and others. Secondly, RUFORUM is mobilising universities to enhance the performance of micro, small, and medium- enterprises (MSMEs) by providing the requisite knowledge and technologies. For bigger enterprises, RUFORUM is developing a programme for mobilising knowledge and products to support their social and environmental sustainability. These actions contribute to RUFORUM's strategic objective of strengthening the capacities of African universities to generate and deploy science solutions to address development challenges.

Lessons learned from the facilitation of universities to create enterprises showed that faculty staff and students have limited capacity to translate prototypes of products or services into businesses and thus need incubation. There is a mismatch between the expected outputs, outcomes, and duration to produce innovations and enterprises by both universities and private enterprises. At the Science, Technology, and Innovation Ecosystem level, there is limited understanding of entrepreneurial architecture, key players, opportunities, and barriers to successfully translating research & innovation outputs from universities to enterprises that create jobs for young people. Universities are often not aware of the opportunities that

¹https://www.afdb.org/fileadmin/uploads/afdb/Documents/Generic-Documents/Brochure_Job_Africa-En.pdf

exist for them to collaborate with the local private sector and policy. This may include capacity and skills development, and knowledge generation usable by business which contribute to social and environmental sustainability and strengthens agricultural and food innovation systems.

Harnessing science solutions to create enterprises for job and wealth creation at scale requires knowledge of existing science, technology, and innovation landscape. An analysis of existing mechanism to transform research outputs into economic activities needs to be done to facilitate creation of technology-based enterprises at scale considering the policies, systems, capacities, actors and their roles, and other factors at national and university level. This knowledge is necessary to inform design and implementation of policy, programmes/projects in different countries.

Recognising the need to generate this knowledge, DeSIRA-LIFT through its support to RUFORUM under Service Area 2, is seeking for an expert to conduct a scoping study on the national science, technology, and innovation landscape and identify mechanisms to transform research outputs originating from universities that have the potential to be transformed into innovations leading to new entrepreneurs. The assignment will identify successful business cases linked to research outputs or graduates from universities and will document lessons learned on the potential leverage of partnerships between universities and businesses in scaling innovations. The lessons learned will be used in various ways: they will be incorporated into RUFORUM's support to African universities, contribute to DeSIRA-LIFT learning on scaling, provide input to DeSIRA-LIFT study on funding innovation, and inform the [Regional Multi-actor Research Network \(RMRN\)](#) Consortia initiative and [DeSIRA projects](#). Linkages will also be developed with the EU-funded [Agri-business Learning Alliance \(ABLA\)](#), an initiative aimed at promoting entrepreneurship in the agricultural sector through market-centric learning, and also with the OACPS research and innovation programme.

3. Scope and results

The overall objective of the assignment is to generate knowledge for supporting agribusiness incubation and entrepreneurship in African universities targeting faculty and students as entrepreneurs, innovators, and job creators.

The specific objectives of the collaboration between RUFORUM and DeSIRA are to:

- a) Identify examples of innovative business cases and/or mechanisms for transforming research results into economic activities that strengthen existing enterprises (especially SME) and/or create new enterprises and decent youth employment in sustainable agriculture and food systems.
- b) Analyze the different models and mechanisms used by universities, research centres and private companies with a focus on among others, enabling/constraining factors, funding mechanisms, services and support provided,
- c) Suggest, based on these cases, how universities' capacity could be strengthened to support responsible innovation and job creation from research processes, and
- d) Provide practical recommendations on the procedures for the universities to translate research products into enterprises.
- e) Widely disseminate the outputs of the study to various stakeholders using various channels

The assignment encompasses the following elements:

- a) The study will review the mechanisms, policies, and processes in support of or against the translation of research products into enterprises or strengthen existing enterprises at national level in Cameroon, Senegal, South Africa, Uganda. These countries were selected for different reasons. Cameroon has a mixed anglophone and francophone education system hence important to obtain cases in this context. Uganda and Senegal are from purely anglophone and francophone education systems respectively and have dedicated government efforts to invest in commercialisation of academic research. Government of Uganda has invested in this area and given RUFORUM to build on earlier pilots. South Africa is relatively advanced in this area hence will be useful in providing homegrown solutions to the challenges based on its own experience. The review will look at:
 - i. different mechanisms to support entrepreneurship making use of research results,
 - ii. enabling factors and constraints to strengthen the innovation ecosystem useful for entrepreneurship, and
 - iii. capacities of universities to support such entrepreneurship.

- b) Document examples of innovations developed by actors with contributions of research and how research outputs have been translated to enterprises through business incubation in Cameroon, Senegal, South Africa, and Uganda.
- c) The relevant cases identified will highlight different models (processes and conditions that make the research products and services scalable through entrepreneurs) such as innovation platforms, mentoring/networking with experienced entrepreneurs.
- d) Document models for financing this innovation (mechanisms and partnerships) and how scaling within the enterprises and across geographies was financed.
- e) Organise a hybrid session at the RUFORUM Triennial Conference in Namibia between 12th and 18th August 2024 in Windhoek, Namibia allowing virtual participation to share the lessons learned from the various processes and scaling models.
- f) Hold national level webinars in partnership with the RUFORUM member universities in each country to widely disseminate the findings at national level.
- g) Prepare a report with the summary of the webinar discussions and learning processes which will be disseminated amongst DeSIRA LIFT and RUFORUM networks.

4. Approach and methodology

The scoping study will make use of (grey) literature and key informant interviews to collect the information required to achieve the objectives. The expert will prepare a methodology to be validated by focal persons of RUFORUM and DeSIRA-LIFT. The findings will be validated with university leadership at the RUFORUM Triennial conference and through country-level webinars.

5. Deliverables

Deliverables of the assignment include:

- a) A short inception report with a methodology for the scoping review, including data collection tools.
- b) A scoping study report detailing mechanisms for transforming research results into products, on scaling innovations through entrepreneurs generated from universities and leading to new entrepreneurship.
- c) Report of the in-person dissemination workshop with Vice Chancellors, Principals and Deans at the RUFORUM Triennial Conference in Windhoek, Namibia validating the findings.
- d) A report of the country level webinars (one in each country) detailing stakeholder feedback on the findings with suggestions for operationalising the findings at national level, and
- e) A publication is produced which will be widely disseminated to the RUFORUM Network.

6. Duration of the assignment

The assignment will last for a maximum of 60 days to be completed between 1st March 2024 and June 2024.

The tentative workplan is as follows:

No.	Activity	Number of days
1.	Conduct a scoping study related to the science, technology, and innovation landscape at national level in four countries on the mechanisms to transform research outputs originating from universities that demonstrated the potential to be transformed into innovations leading to new entrepreneurship or strengthen existing enterprises	40
2.	Facilitate and prepare a report of an in-person dissemination and validation workshop with Vice Chancellors, Principals and Deans at the RUFORUM Triennial Conference in Windhoek, Namibia validating the findings. The validation workshop will receive input from senior leaders to refine the feasibility of recommendations.	5
3.	Facilitate four virtual country level workshops and prepare a Report detailing stakeholder feedback on the findings with suggestions for operationalising the findings at national level	5
4.	Prepare a well formatted publication to be widely disseminated to the RUFORUM Network	10

7. Location of the assignment

The assignment will be primarily home-based and done virtually. However, in-person visits to the four countries, and the RUFORUM Triennial Conference in Windhoek, Namibia are foreseen. Related travel costs are covered by DeSIRA-LIFT.

8. Reporting

The activity will be coordinated by the designated RUFORUM Secretariat staff and the Service Area 2 (SA2) of DeSIRA LIFT core team. The expert will report to RUFORUM and Service Area 2 team as well as to the DeSIRA-LIFT Project Director on progress and validation of timesheets.

9. Required qualifications and experience of the expert

The expert will have:

Qualifications and skills

At least MSc/MA-level in agriculture/natural resources economics, social sciences, political science, or related disciplines; 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 institutional analysis, stakeholder engagement and policy analysis
- A research track record in social sciences; PhD level is an advantage.
- Research experience in (national) agricultural innovation systems is an advantage
- Working knowledge of fields related to innovation systems, science-policy interface, stakeholder engagement.
- Experience with business/entrepreneurship development or experience in linking research with business/private sector.

Soft skills

- Ability to work in a team and in a multicultural context
- Excellent communication skills
- Outstanding experience in writing
- Motivation, self-direction and proactiveness
- Methodological rigour, priority management and organizational skills.

Language skills

- Excellent command of English in writing and speaking.
- Good command of French language will be an advantage.

10. Brief about RUFORUM

The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM), The Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) is a Pan-African network of 170 predominantly agriculture teaching and research universities in 40 African countries.

RUFORUM's vision is a network of vibrant, transformative universities catalyzing sustainable and inclusive agricultural development to feed and create prosperity for Africa.

RUFORUM's mission is to strengthen the capacities of universities to foster innovations responsive to the demands of small-holder farmers through the training of high-quality researchers, the output of impact-

oriented research, and the maintenance of collaborative working relations among researchers, farmers, national agricultural research institutions and governments.

RUFORUM's focus impact sector is agriculture, the growth of which is directly related to creating jobs, wealth, food and nutrition security and livelihoods for the continent. RUFORUM investments are premised on the fact that agriculture employs about 65% of Africa's labour force, and accounts for about 30% of its Gross Domestic Product (GDP). [Moreover, growth in the agricultural sector is known to be the most effective way of moving millions out of poverty and changing their livelihood prospects.](#) RUFORUM seeks to leverage innovation and higher education to create competent human capital and open doors for the [12 million new job seekers in Africa](#), who are primarily young people looking for opportunities, jobs, and skills throughout the continent.

RUFORUM and its partners implement catalytic actions that:

- a) strengthen the capacity of African universities to deliver quality graduate training, conduct research, and unlock entrepreneurial, job and wealth creation opportunities;
- b) leverage African universities capacity to produce competent human resources for research and innovation, entrepreneurship for development processes and practice;
- c) develop and support African institutions and governments to utilise science-based solutions to feed and create prosperity;
- d) generate data and knowledge to inform evidence-based policymaking, investments; and
- e) serve as an anchor and envoy for dialogues that enable national to continental integration of higher education, and research for development, with key Sustainable Development Goals 1 (zero poverty), 2 (zero hunger) and 4 (quality education).