A **L**ong term **E**U- **A**frica research and innovation **P**artnership on food and nutrition security and sustainable **Agri**culture

Call for Preliminary Proposals

15 March 2017

African European collaborative research on Sustainable Agriculture and Aquaculture and on Food and Nutrition Security

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Sustainable Agriculture and Aquaculture for Nutrition and Food Security in Africa

A joint call for research & innovation proposals to the African-European ERA-NET Cofund (LEAP-Agri)

Content

1. Introduction

LEAP-Agri is a partnership between partners from 19 European and African countries and the EU aimed at research and innovation for food and nutrition security as well as sustainable agriculture, including aquaculture. The partnership is an ERA-NET co-fund financed by Ministries from these countries with additional finances from the European Commission in support of the EU-Africa High Level Policy Dialogue on Science, Technology and Innovation (STI) and the implementation of the jointly funded EU-Africa Research and Innovation Partnership.

This call for preliminary proposals invites consortia composed of at least four research organisations and/or private and public practitioners from four of the partner countries (two African and two European) to submit project proposals for research and innovation in the countries concerned with an added value for the EU-AU partnership on food and nutrition security and sustainable agriculture (FNSSA). The proposal development and execution should be driven by local demand and include an approach that contributes to enhancing impact. Specific requirements for applicants may differ between institutes/countries.

1.1 Structural objectives

This call includes research on technical and organisational, socio-cultural and/or socio-economic issues. Solutions should contribute to income generation and provide selling arguments to producers, service providers as well as young entrepreneurs.
The research & innovation (R&I) needs to be relevant to African and European priorities for sustainable agri- and aquaculture, food and nutritional security.

Applications should pursue a holistic (system) approach to find integrated solutions that can be implemented in the relevant context and should address the following aspects:

- Solving of complex economic, ecological and social challenges to improve local nutrition in a sustainable way using comprehensive system-oriented approaches;
- Expected impact of research and likelihood of uptake contributes to solutions and evidence for policy change, to positive agricultural and nutritional outcomes and to significant improvements in economies, wellbeing and resilience;
- Scalability of R&I, impact at national or regional scales;
- Contribution to achieving the Sustainable Development Goals (SDG).

1.2 Policy background

Access to food remains a global challenge, with around 805 million people not having enough to eat (Global hunger index 2014). Nutritional imbalances in Europe and Africa are increasing, characterized by persistent under-nutrition and growing diet-related diseases. It is projected that the global population will increase from 7 billion to more than 9 billion by 2050. A major part of this growth is

expected to take place in Africa. The LEAP-Agri partnership is driven by concerns about how to achieve universal food and nutrition security.

LEAP-Agri operates under the EU Framework Programme for Research and Innovation Horizon 2020, and its Africa-EU High Level Policy Dialogue on Science, Technology and Innovation (STI), which includes the implementation of the jointly funded Africa-EU R&I Partnership focusing on FNSSA (endorsed by the Africa-EU Summit 2014). The research emanating from LEAP-Agri is expected to contribute to African-European joint interests in food and nutrition security. Improving agricultural markets and trade can benefit farmers and entrepreneurs in both continents.

1.3 Partnership background

The LEAP-Agri partnership builds upon long term collaborations between Africa and Europe. It is exemplified by the support of the ERAfrica and ProIntensAfrica initiatives for this co-fund. The ERAfrica Initiative is an independent consortium of African and European funders building on the success of the former ERA-Net ERAfrica co-funded by African and European research agencies. The ProIntensAfrica project consortium has the experience of collaboration between Africa and Europe in the area of Food and Nutrition for Security and Sustainable Agriculture with the objective to develop a "strategic, long-term research and innovation partnership between Europe and Africa to raise sustainable food and nutrition security". Additional partners have joined the LEAP-Agri collaboration.

1.4 Countries participating in the call

The call has been developed in partnership between the following countries/organisations:
African countries: Algeria (DGRSTD-MESRS), Burkina Faso (FONRID), Cameroun (MINRESI), Egypt (MHESR), Ghana (STEPRI-CSIR), Kenya (MOEST), Senegal (MESR), South Africa (NRF), Uganda (UNCST);
European countries: Belgium (FWO, FNRS, BELSPO), Finland (AKA), France (ANR, AFD), Germany (BLE, DLR-PT), The Netherlands (NWO, MINEZ), Norway (RCN), Portugal (FCT), Spain (MINECO), Turkey (TUBITAK);
International organisations: CIHEAM-IAMB (based in Italy)

The four partners (institutions) in a consortium have to be located/working in four of the aforementioned countries (two from each continent). In addition to the general framework of this call, national eligibility criteria and funding regulations apply for each organisation or country. **Annex 1** provides an overview of participating organisations in 19 African and European countries with contacts for Individual Eligibility Criteria and Funding Regulations and a link to the LEAP-Agri website for more detailed information (see also under Call links).

1.5 Governance of LEAP-Agri

LEAP-Agri consists of 30 consortium partners, 24 of which are funding the call. The project is coordinated by ANR (France) in collaboration with MEST (Kenya). The Group of Funding Partners (GFP), comprising all institutes who provide funding to LEAP-Agri, is the ultimate decision-making body regarding the joint call, including the final decision about the granting of proposals.
An international review panel will assess preliminary and full proposals and provide advice on ranking to the GFP. An operational joint Call Secretariat (CS) has been established in order to align the necessary processes related to the call and assessment procedure. This CS will bring together the partners DLR-PT (Germany), NRF (South Africa), and NWO-WOTRO (The Netherlands).
The General Assembly (GA), comprising all consortium members of LEAP-Agri, will constitute the highest decision-making body and the core structure for oversight. It will be in charge of making strategic decisions, reviewing progress, and approving documents, results and approaches of the joint activities. An overview of all consortium partners is available on the LEAP-Agri website.
All parties involved in evaluation and selection procedure and its administration will be required to sign a non-disclosure agreement and code of conduct form.

1.6 Practical information and deadline

The total finances available for this call for proposals amount to € 27 000 000. Projects can apply for a total budget between € 300 000 and € 1,500 000. The budget for each country or organisation is mentioned in the *Individual Eligibility Criteria and Funding Regulations* for that particular institute or country. Budgets should be balanced. Project duration is 36 months and a total of about 30 projects is expected to be funded.

This call is for preliminary proposals that must be submitted electronically **before the deadline, Thursday, 15 June 2017 | 14:00 CEST**. The deadline for full proposals will be in November and submission is upon invitation for selected consortia from the preliminary proposal stage only. Detailed information on project proposal and submission guidelines can be found in the sections below.

2. Aim and the foci

2.1 Background

Despite a slight improvement in recent years, about 800 million people are still starving worldwide, and around 2 billion are suffering from "hidden hunger", i.e. a vitamin and mineral deficiency, while 1.9 billion are overweighed and 600 million suffer from obesity. At the same time, the world population continues to grow, thus increasing the demand for food. Within the next three decades more than two third of this population growth will take place in Africa. Sub-Saharan Africa's (SSA) urban/rural ratio will have reached 50% before 2040 and its rural population will continue to grow well after 2050. But despite this trend, a vast proportion of the world's urban population will be living in African cities and hence farming for cities and urban farming will increase. Changed consumption patterns in emerging economies coupled with an increased global need for sustainable raw materials for non-food products are leading to increased demand and competition in the agricultural sector. In addition, global challenges such as climate change, natural resource degradation, rural exodus, low vocational education, the pressure of the international market and a lack of resources are putting considerable pressure on agri- and aquaculture and the food system to adapt to the changes. These pressures will be higher in Africa, due to the demographic growth and its probable persistence for the next decades, combined with public resources scarcity generating competition between infrastructure, social needs (education and health) and economic development policies.

The potential is enormous: agriculture is the basis of African economies and societies supporting more than half a billion Africans. An estimated 65% to 80% of the population of the respective African countries depend on small-scale farming as the primary source of livelihood. In many African countries agriculture remains the major job provider (62% of labour workforce are family farmers, 22% household informal enterprises, mostly connected to informal food systems). In line with the demographic dynamics in Africa, the role of agri- and aquaculture, food processing and food trade will remain crucial for many African countries and for jobs creation. While most agricultural actors are involved in primary production, a demand for value addition is rising. This point is crucial: the SSA's incipient economic transition makes it necessary to keep workers in agriculture and food transformation, and to think cropping systems innovations taking into account the SSA's job equation.
Despite the enormous potential in agriculture, key factors such as diminishing arable land and pastures and deforestation still remain major limiting factors in addressing food security in Africa and Europe. For instance an estimated percentage of 65% of arable land, 30% of grazing land and 20% of forests are already damaged in Africa[1]. Desertification processes affect 46% of the African continent and 485 million people. Taken together with the high energy costs for fuel and inputs, the degeneration of arable land and water systems and the lack of productivity present real challenges to the food system.

[1] See article: Mail&Guardian Africa

Many African and European countries largely depend on food imports making the population more vulnerable to food price volatility. Increasingly unpredicted climate patterns lead to crop failures and land degradation.

A large proportion of African farm labour is provided by women and youths, who often lack access to land, resources and education. As women are usually in charge of health, feeding, nutrition and education of the family, they are key target group of agricultural and nutrition research in Africa.

To improve the food situation, sustainable food systems must be developed and implemented. African-European research on agri- and aquaculture and food plays a key role in improving food systems and nutrition. For this reason, the LEAP-Agri ERA-NET consortium launches this call for proposals. Its objective is to develop practical solutions in a research process to improve the agricultural sector, the African and European population food and nutrition security and common markets. Applicants are requested to submit proposals for research projects with the potential to provide solutions to improve income generation, nutrition, access to food for disadvantaged populations, to promote sustainable agriculture and sustainable food systems, as well as competitiveness of African agricultural markets. Projects should take into consideration the different niches of agricultural production and trade covering the range of small scale producers, as well as medium and large scale producers, their contribution to local, regional and international markets and the processing of food and grocery marketing, with a focus on rural and urban population food and nutrition security.

2.2 Geographical focus and target groups

Projects should consider European and African topics from the agricultural and aquaculture sector involving for-profit and not-for-profit key partners. Target groups are actors in agricultural production, food-processing and trade.

An inflexion toward farmers' organisations participation, especially smallholders' representatives', should be encouraged. As expressed and advised during the international year of family farming in 2014, research agendas will gain in being co-designed and field research will be more relevant with farmers' involvement. In addition attention for entrepreneurs, especially from SMEs, is highly recommended.

2.3 Gender and youth

The 2012 report of the OECD showed that investments in gender equality yield the highest returns of all development investments. This means investing in gender equality is not only the preferred mode of action in an ethical sense, but also when it comes to development and economic effectiveness. Proper nutrition deriving from sustainable agricultural and food processing practices is a key factor for preventing marginalisation in less privileged areas and especially among girls/women.
The projects are expected to integrate a gender approach in their research and to pay special attention to gender mainstreaming. This entails recognising the different roles of women and men and acknowledging the complementarity of both, in order to obtain full gender equality.

Agriculture worldwide is increasingly facing a generational problem, with many youths not pursuing agricultural and rural livelihoods. At the same time unemployment rates are high amongst the growing urban populations. In developing countries, over 60% of the population is below the age of 25. In these countries, the youth play an important role in meeting the future challenges on access, availability and use of food in the context of trends of population growth, urbanization, globalization and climate change. Applicants are therefore encouraged to include a plan for engagement with youths in their projects. Overall capacity development through the inclusion of young researchers in the project is expected.

Box 1 Innovation and transdisciplinary research

Innovation is the process of developing new value adding ways to meet existing, new or inarticulate needs. Innovation is accomplished through more effective products, processes, services, technologies, policies or ideas that are readily available to governments, markets and society.

Transdisciplinary research crosses scientific disciplinary boundaries (inter-disciplinary) and integrates scientific and practitioners' knowledge in joint research.

2.4 Foci

Food and nutrition security is a complex challenge crossing many sectors, disciplines and policy areas as well as being exposed to profound dynamics at national, regional and global level. Food and nutrition security is intrinsically linked to significant challenges our societies face today. Systemic change and transformation is therefore needed. This requires a more holistic and integrated approach based on well-specified targets.

This call seeks proposals for projects developed in partnerships, which play an essential role in bundling expertise, innovation and outreach, focusing on bottlenecks in the agricultural sector and food system. Inter- and/or transdisciplinary research proposals should therefore be submitted by teams of researchers and other (public/private) partners from Europe and Africa.

Box 2 The food system perspective

The **food system perspective** considers food and nutrition to be the outcomes of interactions between different elements of a system. LEAP-Agri is interested in understanding the drivers (from the global to the local level) that shape the transitions in the food system that are necessary to improve food and nutrition availability, access, utilisation and stability. The policy environment, with its related institutions, at international, regional, national and local level, is a relevant aspect of the food system. In addition, the production and sharing of knowledge and information can influence the system, through skills, science & technology of various sources including farmer/fisher/consumer organisations, or the involvement of media and civil society organisations.

2.4.1 *Research & innovation focus 1: Sustainable intensification*[2]

The African food system has the challenge of producing more and nutritious food for growing populations and external international markets while reducing the environmental impact of food production systems and their demands on ecosystem services. Many regions are facing significant structural and organisational transformations in agri- and aquacultural and rural settings entailing far-reaching social changes. The transformation is slower than it was in today's developed and industrialised countries. Subsistence farmers must efficiently produce food for their families and also conquer the market as commercial farmers to increase income through enhanced land productivity (and pay attention to possible social consequences of labour productivity enhancement).

Indicative areas are suggested for joint research and innovation to improve sustainable food production, to ensure rural population well-being, and to reduce environmental degradation and resource depletion. These are outlines as follows:

- In line with the Paris COP 21 Climate Agreement and the last Marrakech COP 22 discussions, climate smart agriculture practices, including agroecology and agroforestry, and the role of agriculture in relation to both climate mitigation and adaptation to climate change;
- Appropriate soil, water, and input management, with a systemic approach, including improved mechanisation, landscape and integrated pest management, precision agriculture and good irrigation practices, with the aim of delivering the greatest benefits at lowest costs and environmental impact;
- Ecological intensification approaches which optimise the use of ecosystem services and maximize jobs creations to produce food at lowest costs and environmental impact;
- The identification and breeding of animals and crops to maintain/increase productivity and resilience under conditions of limited external inputs and increased abiotic and biotic stresses;
- Animal (incl. fish) and crop health, from farm to international scales, to develop sustainable approaches to optimise resource efficiency, minimise production losses and avoid geographical spreading of diseases/pathogens;
- More efficient biomass utilization, including tree sourced biomass, with a specific attention to relation to food security;
- Advanced informed marine spatial planning (MSP) and better understanding of functioning of marine ecosystems, and aquaculture technologies and systems that are environmentally and economically sustainable, towards increased production with minimal impact on ecosystem functioning and reduced environmental footprint;
- Social and economic roles of sustainable agri- and aquaculture intensification for populations and families, in relation to public goods for enhancing population well-being;
- Models and indicators aiming at measuring simultaneously production, environment and socio economic issues, variables and parameters in order to compare situations and dynamics;

[2] Definition of "Sustainable Intensification": to produce more outputs (not limited to agricultural products) with a more efficient use of all inputs (not only improved seeds and fertilizers but also knowledge and know-how) on a durable basis, while building resilience and the social and natural capitals, reducing environmental damage and improving the flow of environmental services. This definition engages in multi-criterial evaluations to measure food systems' performances for the people and their natural environment.

- Innovative, participative and systemic methods to measure the global impact and performances, all along the food systems frame, of each agriculture intensification pathways (from high inputs conventional agri- and aquaculture and agrifood business to agro and aqua ecological or organic models, from family farming and fishing and small food businesses to industrial and vertical integrated processes), aiming to comparative evaluations to nourish and facilitate policy orientations;
- Modifying microbiota for improved food/feed utilization and animal well-being.

2.4.2 Research & innovation focus 2: Agriculture and food systems for nutrition

While agriculture is the basis for food production and therefore contributes substantially to nutrition, scope exists for research directed at improving agri- and aquaculture and food systems specifically for improved diets and nutritional outcomes. Malnutrition is an increasing challenge in Africa and linked to poor, unilateral diets.

In order to reduce stunting and child mortality and to contribute to health, several determinants have to be taken into consideration: food availability, adequate nutrition, safe water and sanitation, better education of women[3]. It is now well known that food and nutrition security does not only rely on food quantities to be produced nor on farmers'/fishers' income increase. A technical transition is necessary, but alone, without dedicated policies addressing all segments of food systems, will be deficient.

Dietary inadequacy takes very different forms, but all are linked to social behaviour, as well as to limitations in the production, availability, access, affordability and consumption of highly nutritious foods.

The challenge for societies is to address malnutrition, which leads either to under-nutrition and hunger, or obesity and non-communicable diseases, as well as to lack of micronutrients and vitamins. Research on improving agriculture and aquaculture for nutrition will therefore place particular emphasis on increasing the availability, accessibility and affordability of micronutrient-rich foods through improving sustainable production systems for nutritious crops, livestock and marine and freshwater fish.

Research will be funded that contributes to the following objectives:

- Retain nutritional value, shelf-life and food safety;
- Reduce seasonality of food insecurity, as well as food and nutrient losses;
- Improve the diets through diversification.

These objectives are consistent with the "Key recommendations for improving nutrition through agriculture and food systems"[4].

Research projects should deal with nutrition-sensitive food production. In particular, the contribution of a diversified agri- and aquaculture to combat malnutrition shall be analysed and appropriate approaches presented. Interdisciplinary research is welcome.

[3] Smith and Haddad 2013

[4] See FAO (2015): *www.fao.org*
Recommendation 8 of the "Key recommendations for improving nutrition through agriculture and food systems".

Research on nutrition-sensitive agri- and aquaculture and food systems for improved nutrition could include the following indicative topics:

- Improved food value chains for delivering more nutritionally rich food to consumers with minimal loss of nutritional value, little wastage and a high level of safety;
- Enhancing small food business performances, including in rural areas, in order to create jobs and improve proximity relationships in food markets;
- Understanding consumer behaviour with respect to healthy diets and nutrition, and the role of education and incentive systems, for improved nutrition;
- In addition, it is important to sensitise the local and national stakeholders of the target country/region for the subject of nutrition (actors from research, development and policy);
- Research on local and culturally determined dietary habits as well as on the local acceptance of innovations regarding food production, processing and packaging;
- Food quantity and quality improvement and waste reduction along the production, processing and trade chain;
- Public-private partnerships on improved nutritional quality of foods, particularly processed foods, in the marketplace.

2.4.3 Research & innovation theme 3: Expansion and improvement of agricultural markets and trade

Markets and trade play an important role in future growth at domestic and regional levels. Enhanced trade within and between the regions will benefit the farmers/fishers, consumers, and governments.
A wide net of markets offer primary products, are supplier for urban supermarkets and providers to processing industry. The African markets are challenged by pressure of the import-market, inadequacy in logistics, energy supply and infrastructure.
Africa's growing middle class, as well as the international markets, represent a major growth market for agri- and aquaculture, taking into consideration the need to ensure rural and poor urban population access to food.

Research projects working on solutions to improve local access, agricultural markets and Africa-European trade could include the following indicative elements:

- Local and global value chains and markets, including territorial approaches: mechanisms for linking smallholder farmers/fishers & rural communities to markets; the development of local and short marketing channels; access to credit and investments; adding value to commodities through the processing chain; the impact of urbanisation on trade and rural-urban linkages; and new approaches to food safety;
- The question of land tenure systems and local, national and international agricultural land markets, in relation to food security;
- The use of new IT and communication technologies to enhance production, processing and marketing;
- Non-tariff trade barriers: Understanding differences of perception about quality and safety attributes for informing evidence-based decisions on non-tariff barriers to trade;

- Surveillance, monitoring and diagnostic systems: Lack of harmonisation of import and export requirements constitute an impediment to regional and international trade. Collaborative development and broad application of methodologies for detection, monitoring and assessing risks will permit improved trade in agricultural commodities;
- Food and input price stability and system resilience: Reduction of price volatilities in national and international markets and building of resilience for the benefit of consumers and agribusiness. Effects of globalisation of price transmission from international to domestic markets;
- Market logistics from farm to local consumer markets, regional and international markets;
- Improvement of processing and packaging of local products;
- Innovative and multiscale approaches to global food system policies and governance;
- Organisational innovations through new business models, farmer/fisher market information systems, successful producer associations, insurances, and land and water system use and availability, facilitating uptake of innovations across farms and rural communities.

2.5 Increasing impact

As development of research and innovation in private, governmental and civil society sectors is basically a continuous and iterative process, a clear strategy for Research Uptake needs to be provided. Research Uptake is part of the project formulation and execution from the very beginning and includes stakeholder engagement, capacity development and communication. It also aims at influencing an enabling environment.

- **Stakeholder engagement**: stakeholders need to be involved from the research proposal stage onwards. This includes an initial mapping of relevant stakeholders in the preliminary proposal;
- **Capacity development and training**: activities directed at improving the capabilities of individuals, networks and institutes to learn and innovate, based on sustainable partnerships and the ability to both generate and build on knowledge;
- **Communication**: a communication strategy, including specification of target groups, messages to communicate, means of communication etc. is part of the preliminary proposal. The aim is to make knowledge and research results available and accessible for stakeholders as well as the LEAP-Agri partners.

To focus and connect the knowledge sharing and research uptake activities, the invited projects will be requested to design a Theory of Change (ToC) with a related Impact Pathway (IP) which mentions well-specified outputs and outcomes. The ToC describes the relationship, logical flow and/or causalities between planned activities, expected results (output), desired changes (outcome) and main objective (contribution to impact). A context analysis that includes the assumptions underlying the Research Impact Pathway should be part of the ToC (see figure 1 below).

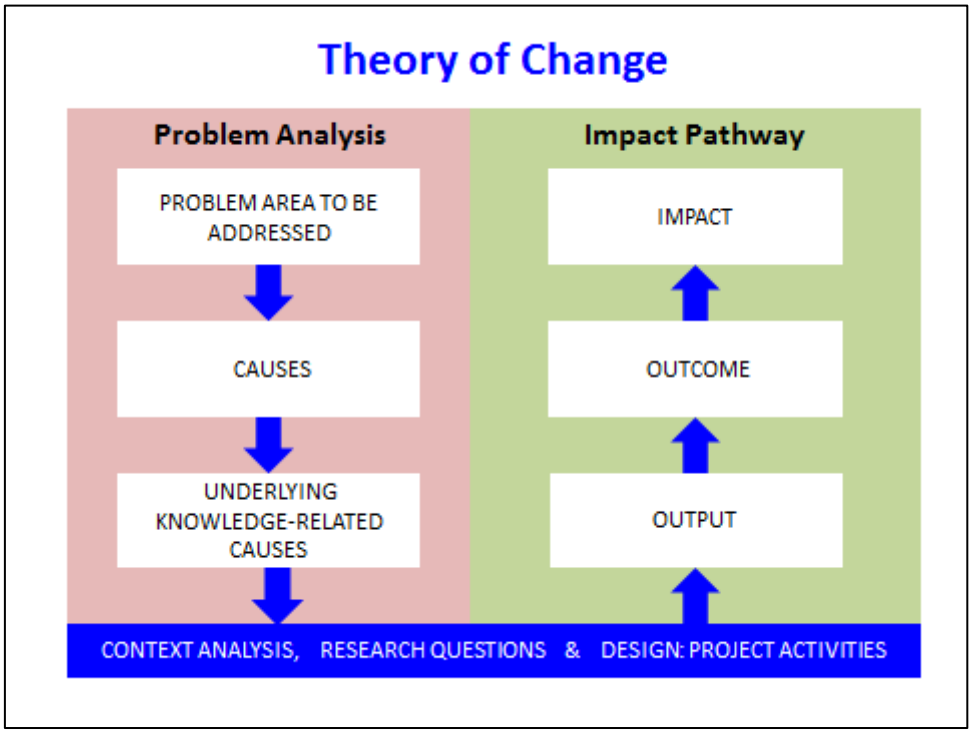


Figure 1: Theory of Change and the Impact Pathway

It is therefore important that in the preliminary proposal the project activities for increasing impact are well integrated and relate to the aim and objectives of the project.

Box 3 Output, outcome and impact
Output: the most immediate results of the research project. Research outputs by consortium members can be reckoned as falling under the direct span of control of the project. Research outcomes relate to the uptake of these outputs by external stakeholders and the effects thereof.
Outcome: The external use, adoption or influence of a project's outputs by next and final users that results in adopter-level changes needed to achieve the intended impact. Indicate the (economic, social, environmental) changes that are expected at the level of the adopters.
Impact: changes in economic, environmental and social conditions that the project is working toward.

2.6 Allocation of funds for Knowledge Sharing and Research Uptake activities

To increase research impact the funded research projects shall contribute to the development of a comprehensive set of recommendations to be presented to agricultural and food actors. Being embedded in a large African-European network, the research should involve target group and key players, including local players from the private (both for-profit and not-for-profit) and policy sector. Involving farmers/fishers, entrepreneurs, policy and NGOs already during the research provides a voice to demand and facilitates scaling-up. Next to this results have to be distributed to new or larger target groups.

Up to 20% of the eligible budget may be allocated for use for the Knowledge Sharing and Research Uptake components. Project consortia should organize activities as well as produce adequate tools

such as radio programmes, videos, training modules, policy briefs, demonstrating the results of the research and elaborating on the potential for adaptation and options for up-scaling. National eligibility of budget items has to be taken into consideration when allocating funds for these activities.

The LEAP-Agri ERA-NET Cofund envisages to present the knowledge sharing and research uptake tools and videos with success-stories from the funded projects on a central platform.

2.7 Request for additional funding for clustering and up-scaling

In order to ensure the practical use of research results, the donor consortium will avail funds from month 12-18 of the respective project period. Research consortia, which already have been awarded a LEAP-Agri grant in this call, may submit proposals to apply for additional funds to launch innovative approaches and/or scaling-up activities within the frame of the ongoing project.

Successful innovations need to be identified and methods to efficiently and effectively upscale these success stories to other target groups must be developed. These concepts require region-specific solutions considering local frame and site conditions. Promising findings should be tested, enhanced and translated in Knowledge Management and Communication Systems (KMCS). Results should be formatted to find entry into policy and educational programmes. Additional activities, cofounded projects outreach and scaling-up should lead to an enhanced level of sustainable outcomes and impact. More detailed information on how to apply for those additional funds will be made available at a later stage.

3. General and national eligibility criteria and funding regulations

3.1 Who can apply?

Applications can be submitted by consortia of at least four partners from four of the countries participating in the call. At least 2 African institutions and 2 European institutions in different countries must be part of the consortium.
Next to these four required project partners, additional consortium partners are allowed. Applicants must be eligible for funding according to the regulations of their respective national Funding Parties (FPs) which are available via the *Individual Eligibility Criteria and Funding Regulations,* which can be downloaded via the LEAP-Agri website (link). Addresses of the contact persons at the respective funding organisations can be found in **Annex 1** to this call. Applicants can represent research and higher education entities, companies, and other legal entities such as NGOs, once again subject to institutional restrictions set by individual Funding Parties (FP). These project partners must be eligible for funding according to the regulations of their respective FPs, which are members of the Group of Funding Partners (GFP). The main applicant is as Consortium Project Coordinator (CPC) responsible for all contact with LEAP-Agri and for informing the other consortium partners about the selection result as well as for synchronising the project start with her/his partners.

Besides the fundable Project Partners it is possible to add additional partners, including from other countries, as Associated Partners, who would then be fully part of the consortium. Associated Partners may not request financing from the LEAP-Agri project, but could be funded by other Funding Agencies, either national, regional or international, including Development Banks such as the World bank.

Proposals must address one or more of the thematic areas supported within the framework of the LEAP-Agri call. For specific requirements national eligibility requirements should be consulted. A consortium can only submit one proposal. Individual consortium members can be part of other consortia. Consortia submitting proposals are obliged to report submission of the same or similar proposals to other funding schemes, as well as funds awarded as a result of such submission. LEAP-Agri retains the right to reconsider the granting of funds should the concerned project consortium fail to report double submissions or the funds awarded as a result of such submissions.

3.2 What can be applied for?

The total funding of one project must be between € 300 000 and € 1,500 000 for a period of 36 months. The funding of an individual proposal will depend on the nature and duration of the proposed activities and must be justified in terms of the resources needed to achieve the objectives of the project. The funding requested should therefore be realistically adjusted to the actual needs of the proposal, taking into account any other funds available.

Eligible costs depend on the *Individual Eligibility Criteria and Funding Regulations*. The following general categories apply:

- Personnel costs (as defined by the relevant FP and according to its local rates and currency) of the research staff and other personnel;
- Mobility costs (travel and subsistence expenses);
- Costs related to organising seminars and workshops within the project;
- Costs for attending the kick-off, mid-term and final workshops of all funded projects;
- Acquisition of material and small-scale research equipment;
- Capacity building, Knowledge Sharing and Research Uptake, and dissemination;
- Research costs;
- Overhead.

Other relevant costs may be funded according to the FPs' institutional regulations, while some of the items listed above may not be eligible for funding by individual FPs. For this reason, it is imperative that applicants take notice of the rules of the FPs concerning the costs they are able to fund prior to proposal preparation. The national contact should be consulted well before the submission deadline. Co-funding is not required, but is encouraged.

3.3 Obligations of Funded Projects

Consortium members are guided by the general requirements of this call as well as their respective national eligibility criteria and granting requirements. Below the general obligations are listed. After granting, a specification of requirements will be included by the funder in the grant letter for each consortium partner. The main applicant is responsible for ensuring the consortium meets all the general obligations. Each consortium partner should approach their national contact at the respective funding organisation for further explanation.

3.3.1 Consortium Agreement

The consortium of applicants will be requested to draw up a Consortium Agreement, which should include the fair handling of IPR, as outlined in the Standard Procedure of the Joint Funding Annex. The final Consortium Agreement must be signed before the conclusion of the Grant Agreements. A concept Consortium Agreement proposal must be added to the full proposal and should at least address the following:

- Internal organisation and management of the consortium;
- Intellectual property arrangements;
- Settlement of internal disputes.

3.3.2 Open Access

Open access (OA) addresses the problem of limited access to (peer-reviewed) scholarly research. It is the practice of providing online access to scientific information (e.g. articles, conference proceedings, monographs, books, theses) that is free of charge to the reader, and licensed so that the information can be further used and exploited by researchers, by the industry and by citizens.
Milestone definitions of Open Access include those of the Budapest Open Access Initiative (BOAI) and the Berlin Declaration (October 2003) on open access.

As a general requirement, a copy of the accepted version (either author final manuscript, post-prints or publisher version) of all peer reviewed journal articles, supported, either in their entirety or in part by LEAP-Agri research funding, will be expected to be deposited in a suitable open access repository immediately upon acceptance for publication, with the metadata (Minimum set of metadata: title, abstract, keywords, name of author(s), affiliation of author(s), publication info (including journal title, volume, issue, publication date)) openly available from the time of deposit. Grant holders are required to report all publications coming forth from research funded under LEAP-Agri as deliverables in their project reports.

Institutions/grant holders agree that by receiving funding from LEAP-Agri they have accepted the terms and conditions of this OA policy. Further details are available on the website. You may also consult the recommendations on Open Access made by the European Research Advisory Board (EURAB) as well as the Scientific Council of the European Research Council.

3.3.3 Project data management

All research data and associated metadata resulting from funded projects should be deposited in a suitable open data repository. The publication of research data, however, is not mandatory. The proposal should provide a data management plan.

3.3.4 Published information on granted projects

A list of the funded projects will be published after granting and updated during the execution of the projects. Therefore applicants should be aware that the following information from the proposals will be published by ERA-NET LEAP-Agri:

- Project title and project acronym;
- Duration of the project;
- Total funding of the project;
- Name of the project consortium coordinator (including contact information as email and telephone number);
- Country, organisation and name of each partner;
- A short publishable summary of the project.

This information will be updated with an annual progress summary, activities and output. Projects are expected to provide this information in their reporting.
Data on each project participant and abstracts of the project proposal will be provided to the European Commission, for publication and evaluation purposes. Information on each funded project, including data on each participant and overview on the results will be updated and send to the EC at the end of ERA-NET LEAP-Agri.

4. General eligibility criteria

After submission proposals will first be checked by the Joint Call Secretariat for the following general eligibility criteria. Each proposal must:

- Be complete according to the rules and in line with the required proposal structure described in the guidelines;
- Be conform to the scope and the thematic focus of the call;
- Be submitted by at least 4 applicants (2 European and 2 African) from 4 different countries from the GFP;
- Comply with the maximum allowed duration of 36 months;
- Comply with the funding requirements;
- Comply with the terms of the submission procedure;
- Be submitted in the English language;
- Be submitted electronically using the *PT-outline' tool (https://secure.pt-dlr.de/ptoutline/app/leap-agri);
- Meet the submission deadline.

In a second step, the eligibility of each applicant participating in a proposal consortium will be checked by their respective funder according to the *Individual Eligibility Criteria and Funding Regulations* of the funder concerned.

Finally, the GFP will approve the list of eligible proposals.

- Only proposals meeting all the above-mentioned eligibility criteria will be processed;
- Non-eligible proposals will be rejected;
- Eligible proposals will be included in the evaluation and selection procedure;
- The applicants will be informed by the joint Call Secretariat, which is responsible for carrying out the call and selection procedure.

5. Evaluation and selection procedure

The fundamental principles governing the evaluation of project proposals are:

- **Transparency.** The process for reaching funding decisions will be clearly described and available to any interested party;
- **Equality of treatment.** All proposals shall be treated alike, irrespective of where they originate or the identity of the proposers;
- **Ethical considerations.** Any proposal that contravenes fundamental ethical principles of a Funding Party (FP) may be excluded from being evaluated and selected at any time by decision of the GFP.

The evaluation and selection procedure will be monitored by independent observers of the EC and the LEAP-Agri ethics board, who will oversee the process and report on it.

5.1 Description of the two-stage process

The Call will follow a two step-procedure:

Step 1) Preliminary proposal stage
Consortia submit a preliminary proposal by the call deadline at **15 June 2017 | 14:00 CEST.** This short application will undergo an eligibility check by the CS as well as the respective national funder. The merit of all eligible proposals will be assessed by an International Review Panel (IRP) which will conduct a scientific evaluation and a feasibility/impact check (criteria see below). Based on this preliminary proposal the expert panel will shortlist consortia who will be invited to submit a full proposal. On behalf of LEAP-Agri the CS will inform applicants of the outcome and whether they are invited to submit a full proposal. This call concerns the preliminary proposal stage.

Step 2) Full proposal stage
The consortium submits a full proposal, providing more detailed information on the aims and objectives of the project outline than in step 1). The submission of full proposals is possible upon invitation only for consortia which were successful in the preliminary proposal phase. Full Proposal submission will be in November. Full proposals will be assessed by at least three external peer-reviewers (evaluators). Applicants will receive the reviews and will be given the opportunity to write a reply and provide comments to the expert's assessments (rebuttal). The IRP will rank all proposals based in the application itself, the reviews and the rebuttal. The final funding decision will be made by the GFP in line with EC regulations and based on the IRP ranking, taking into consideration availability of the funds.
The call for full proposals will be launched in **early December 2017 (exact date will be confirmed later)** and provide more information and guidelines for the invited applicants.

5.2 Criteria for preliminary proposals

The International Review Panel (IRP) will assess all preliminary proposals based on the following criteria:

- Is the consortium appropriate in order to tackle the identified research/innovation question?
- What relevance has/Innovativeness offers the approach described?
- How is the research answering to/addressing the call foci?
- Is the proposed Knowledge Sharing and Research Uptake approach adequate?

5.3 Timetable

Exact deadlines will be confirmed and published soonest

Deadline preliminary proposal	**15 June 2017, 14:00 CEST**
IRP meeting	**September 2017**
Invitation for full proposal application	**Beginning of October 2017**
Deadline for full proposals	**Mid-December 2017**
Proposals assessed by reviewers	**January-February 2018**
Rebuttal	**March 2018**
IRP meeting	**March/Beginning April 2018**
Funding decision	**April 2018**
Procedure with national funder	**April-August 2018**
Starting date projects	**August 2018**
Finalisation of projects – no extension possible!	**August 2021**

Whilst LEAP-Agri aims to meet the target dates provided above, we reserve the right to change these at any stage.

5.4 Criteria full proposals

The International Review Panel (IRP) will assess all full proposals based on the following criteria, in line with EC regulations:

- Excellence of the project;
- Expected Impact of the project;
- Quality and efficiency of the implementation.

6. Submission of Proposals

Only submissions through the official online submission system ("pt-outline*") will be accepted. Proposals sent by mail, e-mail, telex, or facsimile will be rejected without further notice. All members of the GFP will be provided reading access to the online submission system.

6.1 How to use the Online Submission System

6.1.1 Registration for the Online Submission System

In order to submit a proposal the Project Coordinator has to gain access to the online submission system through (https://secure.pt-dlr.de/ptoutline/app/leap-agri). When accessing the submission system for the first time, the Project Coordinator will be asked to enter her/his e-mail address. In return s/he will receive by e-mail a ***user ID*** and a ***password***. Her/his account will be activated after receiving an e-mail containing the password.

6.1.2 Access to the Submission System

The ***password*** grants all partners in the consortium access to the project proposal submission page, where it is possible to complete parts of the project proposal or to place or replace the proposal in part or in full. The exact mode of writing the proposal is at the discretion of the project consortium, which may choose to share the workload, or not, in whatever way they wish. In order to avoid overwriting, mis-editing or other complications applying consortia are advised to have the coordinator fill in all relevant data in the online submission tool. **Submission just before the deadline should be avoided.** High Internet traffic during the last days before the submission deadline of the Call may make access difficult. Differences in time zone should also be taken into account in this regard. In case of technical difficulties applicants are encouraged to contact the helpline (contact details given on the web page) well ahead of the deadline.

6.1.3 Acknowledgement of receipt and registration number

After final submission of the proposal, the Project Coordinator will automatically receive by e-mail an acknowledgement of receipt with the proposal's registration number.

6.1.4 Deadline

All proposals must be submitted by the Project Coordinator before the deadline of **15 June 2017 | 14:00 CEST** (Central European Time). Once finally submitted changes to the proposal will not be possible. Delayed proposals will be considered non-eligible. Access to the online submission system will be closed for applicants after the deadline.

6.2 Structure of the Proposal

Applicants are required to follow the structure as outlined in the online submission system and use the template provided. Only applications submitted with the correct template and in the correct format will be allowed into the procedure. Preliminary proposals must be submitted in Arial font, size 11, 1.2 spacing, using the LEAP-Agri structure for the project description in the online submission tool PT-Outline.

7. Guidelines for Applicants – preliminary stage

The following structure will be given in the online submission tool, PT-Outline:

I General information

Preliminary Proposal Details

a) Title Give the title of your project (less than 200 characters).
b) Short Title or Acronym (max. 20 characters)

Keywords

Identify the 5 most relevant keywords that represent the scientific.

Research and innovation foci selection

Select the appropriate research and innovation focus/foci for your proposal.

Duration of the project

Indicate the duration of the project (max. 36 months).

Countries

Countries focused on in the research project.

Total funding applied for

Take the final requested budget from each of the partners together

Summary for a broader audience (max. 2000 characters including spaces)

Summarise the main questions and/or approach and objectives; give a short description of the activities and expected results of the project. This summary must be manually inserted into the relevant section in 'PT-Outline' and cannot be uploaded as a word document or PDF.

II Consortium Project coordinator

Composition of the consortium: project leader

Please mention the consortium project coordinator, who will be the applicant and submits the proposal. Also indicate the funding organisation that you are requesting money from.
Please include the budget requested from your funder (see below for instructions)

III Project partners

Composition of the consortium: project partners and associated partners

a) Composition of consortium: Fill in the information requested for the fundable project partners/consortium partners (together with the project leader minimum 4: 2 African, 2 European from 4 different countries);
b) Associated Partners: list all Associated Partners (AP), not eligible for funding. They may be from other countries and institutes than the ones required for funding.

Please include the budget requested from your funder (see below for instructions) for each project partner separately. Also indicate the funding organisation that you are requesting money from.

II + III Requested funding (Budget table) – for consortium project coordinator and each project partner. Please check the general requirements as well as the *Individual Eligibility Criteria and Funding Regulations*. National rules may differ for specific budget items that can be applied for and are legally binding.

Employment costs comprise gross salary and all additional taxes, social insurance payments etc. The employment costs should not be detailed by person but by position (e.g. please do not indicate the costs of each Senior Researcher, Ph.D. student, etc. if there are more than one involved, but the total cost for all senior researchers, Ph.D. students, etc. involved).

Research costs include travelling costs (including plane tickets for researcher and supervisor(s), travel in the field and costs of accommodation and travel for short visits); durables (research equipment); consumables, research assistance and other costs. Equipment/material with a cost below €1.000 should be listed under the category "Other costs". The cost of Equipment indicated should be weighted by the percentage of allocation to the project, e.g. if an item will be used 30 % for the project and 70% for other unrelated tasks, then the cost to be entered is [cost of the item x 0.3].

Travel and meeting costs also include subsistence costs as well as other costs necessary for the organisation of the project meetings (e.g. rental of premises, catering, etc).

LEAP-Agri kick-off, mid-term and final workshops: a minimum of 2 participants per project are expected to attend each workshop; please calculate at least € 3000/workshop (a total of €9000 for the duration of the project) for the participation in those meetings,

Knowledge Sharing and Research Uptake may include both the costs for scientific publications (e.g. Open Access publications) and other dissemination materials (e.g. reports, leaflets, websites, etc), workshops and trainings for stakeholder engagement, capacity building, communication and scientific output, including targeting end users and the general audience.

Overheads are all eligible costs which cannot be identified as being directly allocated to the project but which can be justified by the accounting system of the beneficiary's organisation. They comprise costs connected with infrastructures and the general operation of the organisation such as rental or depreciation of buildings, water/gas/electricity, maintenance, insurance, supplies and petty office equipment, communication and connection costs, postage, etc. and costs connected with horizontal services such as administrative and financial management, human resources, training, legal advice, documentation, etc.
Overheads must be in accordance with normal accounting practices of the beneficiary and must be extracted from or reconciled with the official accounts.

Other costs should list any other costs that cannot be categorized in the above sections.

IV Project description and uploads

1. **Aim/objective including relation to chosen focus/foci** (max. 400 words)
   Explain the aims and objectives of the proposed research within the context of the state-of-the art of the scientific area related to the project. Describe the scientific and innovation objectives of the project.

2. **Description of the project** (max 1000 words)
   - Give an overall description of the project and justify the approach/methodology chosen to reach the objectives;
   - Highlight the particular advantages of the methodology chosen; specify the expected project results (in quantitative terms where appropriate);
   - Explain where there might exist a potential for synergy between different tasks of the project and how this is going to be exploited;
   - Give references of relevant scientific publications;
   - Explain integration of gender and youth in the project.

3. **Description of consortium and linkages between the partners** (max words: 400)
   Describe the overall consortium and the links between the participating consortium members/ and the organisations/companies to which they belong (ensure that the consortium is gender balanced).

4. **Expected impact of project** (max words: 400)
   Explanation of the Theory of Change and Impact Pathway should be provided (max 400 words), and the Impact Pathway format completed (see attachment, one page).
   For the related Knowledge Sharing and Research Uptake that should lead to increased impact please provide a short description of the following (max words: 250):
   - Stakeholder engagement: Include an initial mapping of relevant stakeholders and their roles and contributions in the project at all stages;
   - Communication methods for sustainable interaction during and after the project and sharing of knowledge with stakeholders;
   - Capacity development: Describe the activities incorporated in the project with the purpose of capacity development;
   - Communication with stakeholders (including communication strategies): Describe the proposed activities and their timeline.
   - Scientific output.

5. **Date and signature of the coordinator and other consortium partners**

6. **Attachments –** 0.5 page CV per consortium member.

Annex 1 Curriculum vitae

Brief CV for each consortium partner (once converted into Pdf document: max. 0,5 page DIN-A4, Arial font, size 11, 1.2 spacing per consortium partner) Please follow this format:
Name, Date of birth, Position title. Education/training (Master, PhD, Specialization … only mention Institution, Degree, Year, Field)
A. Positions, honours and research support (selection relevant to the call)

1. Positions and Employment;
2. Other Experience and Professional Memberships;
3. Honours, awards and research support.

B. Publications

1. Best 5 selected peer-reviewed scientific publications, relevant for this proposal;
2. Best 5 selected non-scientific publications, e.g. policy documents, guidelines or newspaper articles etc.

Annex 2 Clarification of the budget (max. 100 words)

In case you wish to provide a short clarification (if necessary with additional details) about the budget, please mention this here.
Your (mandatory) information given in the section II Consortium Project Coordinator and III Project Partners would be sufficient; and an additional detailed financial plan is not mandatory.

V Final Check & Submission

Please conduct a final check of all documents before submitting. Note that **no changes can be made to the proposal after submission.**
To submit your project proposal please click the 'submit now' button. Only after having clicked on this button will your proposal be successfully submitted.

In case you would like to exclude a potential reviewer, please inform the Call Secretariat via LEAP-AGRI@nwo.nl before the deadline for pre-proposal. Non-reviewers submitted after the deadline will not be considered and there are no additions possible for the full proposal phase. Kindly note that a maximum of 5 reviewers may be excluded.

8. Procedure for projects selected for funding

Consortium partners of projects selected for funding will have to follow national/institutional procedures after a positive funding decision of LEAP-Agri. These might include additional application and/or registration of your project at national/institutional level. More information about this can be found in the respective national/institutional funding regulations. It is also advisable to contact your funding body as soon as possible in case your project is granted to discuss the national requirements that have to be met before the start of the project.

Call annexes

- Annex 1: Participating organisations with contact persons for Individual Eligibility Criteria and Funding Regulations
- Annex 2: Format for Impact Pathway
- Annex 3: List of abbreviations

Call links

- Online submission system (PT-Outline) with application form: https://secure.pt-dlr.de/ptoutline/app/leap-agri
- *Individual Eligibility Criteria and Funding Regulations* information: http://www.leap-agri.com/index.php/2014-10-27-15-56-42/guidelines-for-submission
- Frequently asked questions for applicants: http://www.leap-agri.com/index.php/2014-10-27-15-56-42/faq

Annex 1: Participating organisations in 19 African and European countries with contacts for Individual Eligibility Criteria and Funding Regulations

Comprehensive information and full contact details can be found at www.leap-agri.com.

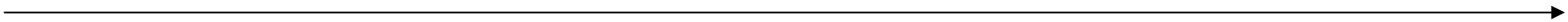
Country	Participating Organisation	Contact Persons per Participating Organisation
Algeria	Direction Générale de la Recherche Scientifique et du Développement Technologique (DGRSTD-MESRS)	Mokhtar Sellami on m.sellami@mesrs.dz Feryel Souami on feryel.souami@gmail.com
Belgium	Fund for Scientific Research (FNRS)	Joël Groeneveld: joel.groeneveld@frs-fnrs.be
Belgium	Research Foundation Flanders (FWO)	Olivier Boehme and Toon Monbaliu on eranet@fwo.be
Belgium	BELSPO	Brigitte Decadt on brigitte.decadt@belspo.be
Burkina Faso	Fonds National de la Recherche et de L'Innovation Pour le Développement (FONRID)	Hamidou Tamboura on Hh_tamboura@hotmail.com Inoussa Zongo on zinoussa@hotmail.com
Cameroon	Ministry of Scientific Research and Innovation (MINRESI)	Palmer Masumbe on masumben@gmail.com Tchouamo Isaac-Roger on rogetchouam@yahoo.fr Okolle Justin Nambangia on okollejustin@yahoo.com
Egypt	Science and Technology Development Fund (STDF)	Nevine Nabil on nevine.nabil@stdf.org.eg
Finland	Academy of Finland (AKA)	Päivi Lindfors on paivi.lindfors@aka.fi
France	French Development Agency (FDA)	Emmanuelle Poirier-Magona on Poirier-magonae@afd.fr
France	Agence Nationale de la Recherche (ANR)	Bernard Mallet on bernardmalletanr@gmail.com
Germany	The Federal Office for Agriculture and Food (BLE)	Henning Knipschild on Henning.Knipschild@ble.de
Germany	German Aerospace Center – Project Management Agency (DLR-PT)	Stefan Haffner on Stefan.Haffner@dlr.de Valéry Anton on Valery.Anton@dlr.de
Ghana	Council for Scientific and Industrial Research (CSIR)	George Owusu Essegbey on goessegbey@csir-stepri.org
Italy	Centre International de Hautes Etudes Agronomique Méditerranéennes, Bari (CHIEAM-Bari)	Maroun Elmoujabber on elmoujabber@iamb.it
Kenya	Ministry of Education Science and Technology (MOST)	Jacob Njagi on kamwariajacob@yahoo.com Willies Okoth on willokoth@gmail.com
The Netherlands	Netherlands Organisation for Scientific Research (NWO)	Monika Brasser and Cora Govers on LEAP-Agri@nwo.nl
The Netherlands	Ministry of Economic Affairs (MINEZ)	Monika Brasser and Cora Govers on LEAP-Agri@nwo.nl
Norway	Research Council Norway (RCN)	Jan Monteverde Haakonsen on jha@rcn.no
Portugal	Fundação para a Ciência e a Tecnologia (FCT)	Maria João Maia on Maria.Maia@fct.pt
Senegal	Fond d'impulsion de la Recherche Scientifique et technique (FIRST) / Direction du Financement de la Recherche et du Développement technologique (DFRSDT)	Soukèye Dia Tine on soukeye.diatine@gmail.com
South Africa	National Research Foundation (NRF)	Prudence Makhura on prudence.makhura@nrf.ac.za Malose Ledwaba on Malose.ledwaba@nrf.ac.za
Spain	Ministry of Economy, Industry and Competitiveness – through the State Agency for Research (MINECO)	José Javier Pueyo and Justyna Chojnacka on era-gro@mineco.es
Turkey	The Scientific and Technological Research Council of Turkey (TUBITAK)	Kerem Lutfi Akilli on kerem.akilli@tubitak.gov.tr
Uganda	Uganda National Council for Science and Technology (UNCST)	Ismail Barugahara on i.barugahara@uncst.go.ug

Annex 2: Impact Pathway diagram with indicators at output and outcome level (max. 1 page)

Research outputs	Indicators

Research outcomes	Indicators

Impact



Annex 3: List of Abbreviations

JCS	Joint Call Secretariat
LEAP-Agri CA	LEAP-Agri Consortium Agreement
FNSSA	Food and Nutrition Security and Sustainable Agriculture and Aquaculture
FP	Funding Party/ies
GA	General Assembly
GFP	Group of Funding Parties
IRP	International Review Panel
JC	Joint Call
NCP	National Contact Point
PCA	Project's Consortium Agreement
R&I	Research and Innovation
RCP	Regional Contact Point