Results of Competition: Agri-Tech Catalyst Round 8: Agriculture and Food Systems Innovation

Competition Code: 1904_CRD_DFID_AGRITECH_R8

Total available funding is £9.3m

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Cambivac Ltd	Novel FMDV Vaccine Technology for Africa	£576,639	£403,647
Afrivet Buisness Management PTY Ltd		£149,625	£89,775

Foot and Mouth disease virus (FMDV) is endemic in most African countries. FMD is a highly infectious and potentially fatal disease that infects livestock. The disease has a huge economic impact in Africa, as it reduces the productivity of farmers and their ability to export produce, with losses conservatively estimated at USD 800 million. There are different serotypes of FMDV, and each requires its own vaccine in order to protect animals. Each serotype is separated into different strains and these can evolve so that they too require a new vaccine to protect against them. The different serotypes and strains vary in different regions in Africa, so that each region requires its own range of vaccines. There are vaccines available for FMD in sub-Saharan Africa but they are not currently fit for purpose because: 1) they are too expensive, 2) in many African regions they do not protect against the circulating strains 3) they must be given repeatedly and 4) they must be kept refrigerated in an uninterrupted cold chain, which is not possible for many livestock keepers. The project will study the feasibility of producing new FMDV vaccines that are cheaper, simpler to produce, more stable, match circulating strains and have better regional coverage than the current vaccines in Africa

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Results of Competition: Agri-Tech Catalyst Round 8: Agriculture and Food Systems Innovation

Competition Code: 1904_CRD_DFID_AGRITECH_R8

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Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
The James Hutton Institute	Development and assessment of nematode resistant potato cultivars for East Africa (Kenya)	£13,150	£13,150
IITA Limited		£50,334	£50,334
James Hutton Limited		£63,062	£31,531

Potato is the second most important crop in Kenya and is grown for food and as a source of income. The vast majority of growers in Kenya are smallholder farmers. Pests and diseases cause huge losses to crop production across the world, including Kenya. Potato production in Kenya is being seriously impacted by an emerging introduced pathogen, the Potato Cyst Nematode (PCN). This proof of concept proposal aims to demonstrate that potato cultivars that combine the quality traits favoured by Kenyan growers and the women who are responsible for the majority of food preparation in rural Kenya, with resistance to the predominant PCN species present in Kenya, represent a valid target for breeding programmes and subsequent commercialisation.

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Results of Competition: Agri-Tech Catalyst Round 8: Agriculture and Food Systems Innovation

Competition Code: 1904_CRD_DFID_AGRITECH_R8

Total available funding is £9.3m

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
PSECC Ltd	Design and development of direct-coupled photovoltaic powered agri-processing machinary	£27,270	£19,089
First Products Enterprise		£61,500	£43,050
Food Research Institute		£13,200	£13,200
University of Greenwich		£75,210	£60,168

Solar PV technology has seen the highest growth rate among all renewable energy resources in the last decade and a steep learning curve resulting in a significant reduction in the cost of key components such as solar modules. For example, in the last decade, the price of solar modules has reduced ten times. In such a scenario developing solar PV agricultural processing machines is a rewarding proposition, particularly in the geographic south, notably Africa has an added advantage in terms of total solar radiations received. The current project aims at exploiting this potential in Ghana for cassava processing as a case study crop. Processing cassava is a key to preserve and make it suitable for consumption. Estimates suggest that lack of access to rapid processing machinery at smallholder level results in significant food losses and wastages. To undertake the challenge of rapid cassava processing, the solution which the team is offering is based on the principle of "decentralised cassava processing by solar driven machinery". A directly coupled photovoltaic (PV) panel and a direct current (DC) motor run chipping, grating and milling will provide efficient and fast processing of freshly harvested roots into dehydrated cassava products.

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Results of Competition: Agri-Tech Catalyst Round 8: Agriculture and Food Systems Innovation

Competition Code: 1904_CRD_DFID_AGRITECH_R8

Total available funding is £9.3m

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Rail Vision Europe Ltd	Development of Aerial Risk Inspection, Evaluation and Surveying (ARIES) platform for Cocoa Plantations	£673,342	£471,339
Certis Europe BV		£47,974	£0
Positive Agro Solutions LTD		£136,069	£95,247
Rothamsted Research Limited		£137,857	£137,857

Project description - provided by applicants	
Awaiting Public Project Summary	

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Results of Competition: Agri-Tech Catalyst Round 8: Agriculture and Food Systems Innovation

Competition Code: 1904_CRD_DFID_AGRITECH_R8

Total available funding is £9.3m

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Innvotek Ltd	Smart Greenhouses for Africa (SmartGFA)	£246,942	£172,859
Brunel University London		£234,161	£234,161
Juhudi Kilimo Company Limited		£29,650	£14,825
Synnefa Green Ltd		£211,497	£148,048
Wefarm Limited		£137,112	£95,978

Project description - provided by applicants	
Awaiting Public Project Summary	

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Airponix Ltd	Aeroponic disruptive advancement for game-changes in seed potato production in Kenya	£223,152	£155,000
Kisima Farm Limited		£92,118	£46,059
The James Hutton Institute		£91,209	£91,209

Project description - provided by applicants	
Awaiting Public Project Summary	

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Provenance Partners Limited	Novel polymer-based technologies to reduce waste and enhance incomes for smallholders and commercial fine bean growers in Kenya	£16,834	£8,417
Cranfield University		£151,089	£151,089
Flamingo Horticulture Kenya Limited		£45,900	£22,950
SNF Group		£17,200	£0
Vegpro (Kenya) Ltd		£92,154	£46,077

In Kenya, the agriculture sector contributes 29.3% to GDP and accounts for 80 % of national employment. Kenyan exports of fine beans to the EU and UK account for 70% of all vegetables and 21% of horticultural exports. About 60% of fine bean exports are produced by >50,000 Kenyan smallholder farmers acting as outgrowers for commercial farms. It is a crop with great potential to address food insecurity, income generation and poverty alleviation in the region. Total production is approximately 62,400 t p.a., however with 60% pack-out (40% rejects) total exports are circa 37,400 t p.a. 'Soiling' of beans via rainsplash accounts for >25% of these rejects. This is due to direct yield losses associated with splash transfer of plant pathogens and bean quality defects due to fungal and bacterial pathogens. Latent infection can also result in further post-harvest storage losses. This project will implement spray innovations based on anionic polyacrylamides (PAM) to minimise soiling. This will reduce yield losses & wastage and increase farm income. Field validation will be undertaken on Vegpro Kenya's commercial farms and with selected outgrowers. Effective dissemination through Vegpro's existing knowledge exchange pathways will facilitate rapid adoption by 5,000 smallholders that supply into Vegpro

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Agsenze Ltd	SmartCoop: Creating a smart chicken coop for use in rural Africa	£229,039	£160,327
Inkukukaya SA		£92,420	£64,694
PCI Agricultural Services (T/A NOSA)		£36,360	£25,452

Chicken and eggs are a major source of both nutrition and income in rural parts of Eastern and Southern Africa. Local bird breeds are often reared in family homes by women who a) directly consume produce or b) sell produce to urban markets. To date, most poultry farming is performed at small scales (<50 birds) but there is a great opportunity to sell more produce to wealthier middle-class people and help women and their families to earn more money. This 18-month project (SmartCoop) aims to support the scale-up of rural poultry production by combining two innovative technologies: self-building chicken coops (sold throughout Southern Africa by Inkukakaya) and bird sound hardware and analytics (developed by UK SME AgsenZe). Together, this project will yield a new class of chicken coop equipped with decision support tools to enable female growers to reduce mortality rates, increase production and upskill through delivery of both agricultural and basic business/commercially-orientated courses (via partnership with NOSA). We expect outputs of this project to impact individuals (increased protein availability and direct revenue), communities (through formation of a female-led co-operative) and nationally.

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Competition Code: 1904_CRD_DFID_AGRITECH_R8

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
African Origins UK Limited	Kalahari Melon Seed Oil – turning a drought-resistant weed into a high value crop for the cosmetic industry	£157,583	£110,308
The Sustainability Institute Trust		£154,923	£154,923

Once considered a weed, the Kalahari Melon is an indigenous, hardy, well-established plant in South Africa, that is both easy to grow, can be grown in shallow-sandy soil and is extremely drought resistant. It is also rapid increasingly in value due to its adoption by the cosmetics industry, where it has demonstrated highly efficacious properties. - The KM's drought-resistance and ease to cultivate means it perfect crop to be grown by smallholders (~33m) in Sub-Saharan Africa, where climate change has left them most at risk of crop failure and poverty, due to their reliance on resource-intensive and temperature sensitive staple crops such as maize and wheat. - We believe the adoption of the KM and production of its high-value seed oil can become a £1bn industry by 2026 (based upon closest comparative natural cosmetic ingredient, Argan Oil's, rapid growth) and therefore become powerful tool for socio-economic development, helping farmers and smallholders in parts of Africa most affected by climate change. - Working with stakeholders from all stages of the supply chain- Smallholders&Farmers from the Kalahari Basin, The Sustainability Institute, KM oil distributors & Tropic Skincare cosmetics as we aim to evidence economic feasibility, cosmetic efficacy, best production practices & ultimately encourage the adoption of KM production.

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Competition Code: 1904_CRD_DFID_AGRITECH_R8

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
AgroPy (UK) Limited	Antestia Control	£199,319	£139,523
Bangor University		£106,674	£106,674
Rainbow Professional Limited		£132,769	£92,938
The Coffee Bean Team		£97,855	£68,498
University of Rwanda		£47,357	£47,357
Ymgynghorwyr Lisk & Jones Cyf		£135,097	£94,568

Project description - provided by applicants	
Awaiting Public Project Summary	

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
University of Edinburgh	Novel plant-growth-promoting rhizobacteria for improved cultivation and nutrition of maize crops	£226,802	£226,802
African Centre for Gene Technologies		£22,999	£22,999
Omnia Holdings Limited		£249,997	£124,998

There is a need for a balanced approach to addressing growing world food demands and meeting the green standards set by the various regulatory bodies. One of these standards is the use of alternatives to chemical fertilizers. The African Centre for Gene Technologies (ACGT) has strong experience in establishing and managing collaborative programmes in the field of biotechnology. The ACGT will be coordinating and facilitating a collaborative project between Omnia, a South African biotechnology company and domain experts from the University of Edinburgh. This team will be conducting research that will investigate the application of naturally occurring bacteria that are found in the root systems of plants as alternatives to fertilizer and as biostimulants to improve yields, stress tolerance and nutritional value of crops, including the subsistence crop maize, consumed as staple in South Africa. Subsequently, the team will be applying advanced metabolite profiling techniques (metabolomics) to determine the bacterial benefits on plant growth, development and yield. Vitamin A, iron and zinc are key nutrients essential for healthy development of children and adults. The ideal combinations of biostimulants emanating from this research will be those that improve the

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Cranfield University	NutriNuts: Mitigation of aflatoxins occurrence in Ethiopian peanuts used in therapeutic food products to reduce malnutrition in Africa	£349,614	£349,614
Haramaya University		£78,599	£78,599
Hilina Enriched Foods PLC		£507,264	£304,358

Peanuts are contaminated by fungi belonging to the genus Aspergillus that produce carcinogenic compounds called aflatoxins. Due to high aflatoxin contamination in Ethiopian peanuts, local processors, such as our partner Hilina Enriched PLC (HI), are forced to import up to 50% of their peanuts from abroad at a greater cost. HI would like to secure, use and protect their local peanut supply chain against aflatoxins. This project will develop tools, from preharvest to processing, with the goal of achieving nearly 100% of Hilinas' peanut supply sourced from local farmers. To achieve this goal, the innovative approach will include: (i) Pre-harvest: agronomic recommendations/training for farmers to increase yield and reduce aflatoxin risks, (ii) post-harvest: development of a vertical tray home-drying system and replacement of the current "soaking" methodology with home-made mechanical shelling devices, (iii) development of protection during transport and (iv) development of new peanut-based product lines with optimised sorting and recycling of the peanut waste. The project will increase the acquisition an increased supply of locally produced high quality (low toxin) peanuts for HI. This will increase the safety of the product, matching UK regulations, and provide potenial opportunities for export.

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Competition Code: 1904_CRD_DFID_AGRITECH_R8

Total available funding is £9.3m

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
P.E.S. Technologies Limited	Bringing affordable soil testing to smallholder farmers in sub-Saharan Africa	£150,500	£105,350
Innovative Solutions For Decision Agriculture Limited		£88,039	£61,627
International Centre for Research in Agroforestry		£107,186	£107,186

Food demand in Sub-Saharan Africa is projected to triple between 2010 and 2050 and rapid closure of the gap between current farm yields and yield potential is needed to maintain the current level of cereal self-sufficiency (approximately 80%) by 2050. Without it, the result will be massive cropland expansion with attendant biodiversity loss and greenhouse gas emissions or vast import dependency. The aim of this project is therefore to bring affordable soil analysis to smallholder farmers across Africa to harness the benefits for investments in fertilisers to increase their yields. Our solution is to tap into the wealth of information contained in the gases released by soil biota. In preliminary work a sensor for these gases was developed and it was demonstrated that its responses can be correlated with various soil properties. The project will be led by P.E.S. Technologies, a UK-based start-up company that developed the soil gas sensor, in collaboration with iSDA, a not-for-profit spin-out from the African Soil Information System (AfSIS), and World Agroforestry (ICRAF), which is a centre of science and development excellence working with farmers that is based in Kenya.

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Results of Competition: Agri-Tech Catalyst Round 8: Agriculture and Food Systems Innovation

Competition Code: 1904_CRD_DFID_AGRITECH_R8

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
NIAB	Developing microbial-based products and strategies for improving rice production in Tanzania	£386,358	£386,358
Crop Nutrition Laboratory Services Limited		£67,942	£47,559
The Real IPM Co (Kenya) Ltd		£411,261	£205,630

Tanzania government has recently made a series of policies to support the agriculture development for both demotic and export markets in order to address the local, regional and global demand-supply gap for rice and high-value fruit. However, sustainable production of these crops in Tanzania faces a number of challenges, including the effective management of plant diseases. For instance, rice blast can usually result in 15% of yield losses. We propose to develop innovative biocontrol methods to manage rice blast, the most damaging disease in rice, combining seed-coating with specific biocontrol agents (BCA) with dipping roots in and foliar applications of BCAs. To optimise biocontrol strategies, we will conduct experiments to study the effects of coating seeds or dipping roots in BCAs on root microbial population and induced resistance and to study survival and dispersal of BCAs on the leaf surfaces. A network of field studies will be carried out in Tanzania; training courses will be run to promote the principles of integrated pest management. Adoption of the project results will lead to significant increases in marketable yield for smallholder farmers without excessive input of fungicides

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Results of Competition: Agri-Tech Catalyst Round 8: Agriculture and Food Systems Innovation

Competition Code: 1904_CRD_DFID_AGRITECH_R8

Total available funding is £9.3m

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
University of the West of Scotland	Cost-effective aquaponic solutions for developing farmers in Rwanda (CASDFR)	£154,412	£154,412
NjordFrey		£184,804	£129,363

In Rwanda, 1million+ smallholder farmers who wish to provide a nutritious protein and plant-based diet while increasing yields to support economic growth are limited by: high capital costs for high yield solutions, basic farming techniques, lack of food security and consistent rainfall, few routes to market, and a dependency trap reliant on other solutions. NjordFrey (NF), offers these farmers access to sustainably designed aquaponic starter kits via an outgrower model, seasonal input product lines (e.g. seeds & fingerlings), operational training to become independent, and facilitate routes to market. In collaboration with University of West of Scotland (UWS) this project develops a digital farm health monitoring system with a high-tech back end (distributed sensing and data analytics framework) with low-tech front end approach (sms/voice call) to feedback actions to farmers in an inclusive manner. This provides NF with a data driven product to capture market share in Rwanda,removes high up-front costs and technical barriers, provides increased yields of organic produce, increases calorie intake by 28% and income by 4-fold for up to 80,000 farmers and their families, via 2,000+ farms within 10 years. Tackling malnutrition to improve livelihoods through this model is an innovative first within Rwanda.

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Competition Code: 1904_CRD_DFID_AGRITECH_R8

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
PST Sensors Europe Limited	Pick,Store,Buy: Shelf life extension and reduced waste for tomato production in Nigeria	£249,964	£174,975
NABDA		£100,286	£100,286
RSK ADAS Limited		£365,965	£182,982
University of Nottingham		£265,659	£265,659

Waste of highly nutritious fresh produce is a significant problem for developing countries, where 70% of the population can be engaged with the sector. It threatens the growth of primary agriculture industries, the livelihoods of workers, economic progress and food security. Whilst Nigeria is the largest producer of tomatoes in west Africa, 50% of harvested produce perishes, before it can be distributed and sold to consumers. This project will develop an integrated, cost effective and sustainable solution to manage the postharvest value chain where most produce is lost. The project partners, one based in Nigeria and three UK organisations will deploy cutting edge technology from biological and physical sciences and sensor engineering to develop Pick, Store, Buy. The project will focus on three key innovations for the Nigerian tomato sector i) ripening suspension using air purification and the removal of ethylene a key ripening hormone which is produced by plant tissues, ii) printable robust and portable microelectronics to measure real time key environmental factors that control ripening iii) shelf life prediction using gene discovery and real time data streaming algorithms. An extensive project partner communication programme in Nigeria will be critical to raising awareness and implementation of this much needed technology for the fresh produce value chain

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Crop Health and Protection Limited	Diagnostic Tool for the Identification and Quantification of Potato Cyst Nematode (PCN)	£57,921	£57,921
International Centre for Insect Physiology and Ecology		£50,001	£50,001
P.E.S. Technologies Limited		£121,556	£85,089

Globally, potato has proved a valuable and nutritious staple crop driving both food security and GDP growth. In Kenya, potato ranks second in importance, after maize, and approximately 800,000 people benefit directly from potato production. However, to date, there are several challenges facing potato production, including potato cyst nematode (PCN). PCN are tiny cysts containing hundreds of eggs that hatch into juvenile nematodes that attack roots, causing up to 80% yield loss. A recent survey in Kenya showed that PCN is widespread in the main potato growing areas, so potato farmers urgently need better diagnostic tools to detect and quantify PCN. The proposed project aims to develop a PCN Assessment Tool, based on volatiles, that will then be compared to conventional and novel analyses of PCN levels, using morphological analysis, next-generation sequencing and Matrix-Assisted Laser-Desorption and Ionization Time-of-Flight Mass Spectroscopy. The outputs of the project will be of great benefit for potato farmers in Kenya, providing a quick, easy and cost effective PCN Assessment Tool. On-farm detection of PCN would aid farmers in agronomic decision making, thus leading to increased potato productivity, and greater uptake of crop rotation, which is currently lacking in Kenya

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
EnSo Trading Limited	INNOVATIVE SOLAR ENERGY TECHNOLOGY FOR KENYAN TEA INDUSTRY INSET4KTI	£152,010	£106,407
Brunel University London		£173,866	£173,866
CoolSky Ltd		£19,913	£13,939
Eenovators Limited		£151,502	£106,051

Project description - provided by applicants	
Awaiting Public Project Summary	

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Phase Change Material Products Ltd	SolCOOL- Solar Powered Cold Food Chains for Food Waste Reduction and Value Addition	£156,839	£109,787
Brunel University London		£148,931	£148,931
Tanzania Horticultural Association Limited		£65,739	£39,443
University of Nairobi Kenya		£48,000	£48,000

The vision of SolCOOL is to address the challenges of food waste, and improve the livelihoods of rural farmers and communities in Sub-Sahara Africa and beyond by providing access to energy and high value horticulture for local and overseas markets. This will be achieved through the development, and application of highly efficient cold food chain technologies powered by off-grid renewable energy at farm or community level. The vision will be realised by developing a low cost but highly efficient cold storage technology, powered by solar energy that can be used both for stationary cooling and temperature controlled food transportation. This early stage project will develop a number of innovations which include: i) software tools for the design and sizing of off grid food storage and transportation systems for different horticulture products, storage and transportation scenarios and Sub-Sahara Africa weather conditions; ii) modular insulated cold storage containers that can be used interchangeably for both on farm storage and temperature controlled distribution; iii) a low environmental impact refrigeration system powered by solar energy; iv) on-board integration and control of electrical and thermal energy storage for off-grid operation and high product shelf life.

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
AbacusBio International Limited	PigBoost:Sustainable data-driven pig production for Uganda	£182,913	£128,039
Makerere University		£75,324	£75,324
University of Edinburgh		£97,544	£97,544
Vetline Services Ltd		£143,868	£100,708

Pigboost will bridge the gap between pig farmers, veterinarians, and extension service-providers by delivering a state-of-the-art decision support system that enables real-time monitoring of animal performance, that will be used to improve animal breeding and disease management for the Ugandan pig industry. Beyond the immediate animal production benefits for individual farmers and for the industry, which will create business opportunities and attract investments, the data captured will be used to inform the establishment of a pig breeding nucleus to breed locally adapted high genetic merit pigs. Long-term, incorporation of machine learning and pathological studies will enable the development of a full diagnostic suite to promote correct use of veterinary pharmaceuticals and improve animal health and wellbeing. The project will promote gender equality and empower women, considering the large presence of pigs in peri-urban households.

Note: you can see all Innovate UK-funded projects here: https://www.gov.uk/government/publications/innovate-uk-funded-projects Use the Competition Code given above to search for this competition's results

Results of Competition: Agri-Tech Catalyst Round 8: Agriculture and Food Systems Innovation

Competition Code: 1904_CRD_DFID_AGRITECH_R8

Total available funding is £9.3m

Note: These proposals have succeeded in the assessment stage of this competition. All are subject to grant offer and conditions being met.

Participant organisation names	Project title	Proposed project costs	Proposed project grant
Aberystwyth University	Delivering low glycaemic index (GI) pearl millet grains for the benefits of type-2 diabetics in African regions	£150,192	£150,192
AINOMA Seed Farm		£243,800	£146,280
International Crops Research Institute for Semi Arid Tropics (ICRISAT)		£98,000	£98,000

Pearl millet is a drought hardy and sustainable cereal with superior glycaemic control over wheat and rice. The number of (type 2) mainly non-insulin dependent diabetics in African region is currently more than 25 million and rising, while in the UK it is estimated that 5 million people will have diabetes by 2025. It is estimated that for a low-income family in a country like India or Africa with a diabetic adult, as much as 25% of family income may be devoted to diabetes care. This project builds upon our earlier funded IUK projects where promising pearl millet hybrids combining lower glycaemic index (GI) and higher yield and mineral contents (such as Iron and Zinc) have been identified. In this project we will test these hybrids across 10 locations in western and eastern Africa and identify if any of these can be directly recommended for cultivation for the benefits of type-2 diabtics in these region. Availablilty of such seeds will enable small holders to produce grains with added health benefits providing them opportunities to trade their produce at higher prices, and also valuable raw material for the consumers and industries to make specialised functional food for the benefit of type-2 diabetics.

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Results of Competition: Agri-Tech Catalyst Round 8: Agriculture and Food Systems Innovation

Competition Code: 1904_CRD_DFID_AGRITECH_R8

Total available funding is £9.3m

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Genus PLC	PigsforAfrica	£250,000	£125,000
International Livestock Research Institute, Biosciences Eastern & Central Africa		£144,233	£144,233
University of Edinburgh		£105,767	£105,767

Project description - provided by applicants	
Awaiting Public Project Summary	

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
Biopolymer Solutions Limited	High Protein Shelf Stable Expanded Snacks: Based on Insects and Local Carbohydrate Sources	£99,370	£69,559
Federal Polytechnic Oko		£52,437	£26,218
Real World Business Solutions Limited		£43,419	£30,393
University of Nottingham		£74,978	£59,982

This project will establish if a food supply chain can be developed so that locally sourced starchy materials and insects could be supplied from within rural Nigeria for the creation of an innovative new food product. Tests have shown that this new food product can be made from unrefined proteins and starch to create a light crispy type product that has a protein content of more than 40%. The manufacturing steps for the product are not complicated and have low environmental costs and, as part of the study, the feasibility of undertaking manufacturing within the community will be checked. Prototype products will be used in consumer testing within Nigeria to see if these are acceptable to urban and rural communities. If products are liked and their nutritional and cost demonstrated as beneficial then the use of these product will help achieve the Innovate UK Challenge goal of contributing to healthy, safe and nutritious diets.

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Participant organisation names	Project title	Proposed project costs	Proposed project grant
RSK ADAS Limited	Development of improved tests for detection of Rift Valley fever virus antibodies	£193,931	£96,966
Kenya Agricultural and Livestock Research Organization		£64,893	£64,893
University of Nottingham		£108,246	£108,246

Rift Valley fever virus (RVFV) causes abortions and death in livestock including sheep, goats and cattle in Africa, devastating local economies. It can also cause severe disease in people. Outbreaks in Saudi Arabia and Yemen have resulted in countries imposing embargoes on live animal exports from affected regions (further contributing to economic losses caused by the disease). There is also concern that the virus could spread to Europe. Serological tests, which measure an antibody response to infection, are commonly used for diagnosis and surveillance of RVFV infection in animals or humans. This project addresses the need for more specific rapid serological assays for RVFV. We will use a novel approach (next-generation phage display) to identify peptides that mimic the small regions of virus proteins that are specifically recognised by antibodies during infection. The assays that are developed will contribute to ensuring that robust and timely serosurveillance for RVFV can be carried out and reduce barriers to the trade of livestock from countries such as Kenya where the disease is endemic

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