



Innovate UK



GUIDANCE FOR APPLICANTS

South Africa-UK Collaborative Research and Development Programme in Precision Medicine 2017

with support of the Newton Fund

**by
South African Medical Research Council (SAMRC), South Africa
and
Innovate UK, UK**

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Executive summary

The South African Medical Research Council and Innovate UK are running a call for proposals for collaborative research and development projects between British companies and South African companies/researchers focusing on developing new affordable precision medicine solutions to address the South African non-communicable disease burden, and take into account the wide genetic variation of the South African population.

The South African health situation is characterized by what is referred to as a quadruple burden of disease. Recent years have seen a great increase in non-communicable diseases (NCDs), with the disease burden for NCD in South Africa being twice that of the global average for developing countries. In 2010 NCDs accounted for 39% of all the deaths in the country, with more than 36% of these deaths occurring before the age of 60. Urbanization and its impact on the majority of South Africans has led to an increase in non-communicable diseases such as cancer, cardiovascular disease and diabetes. There is a need for preventive and predictive measures to be implemented in the form of prevention care strategies. The one size fits all approach has proven to be ineffective in South Africa; instead, the Government is regarding Precision Medicine as a more efficient way to assess health risk prediction, diagnose, treat & understand disease states.

Both the South African and British governments are aiming to support projects developing the use of cutting-edge solutions to tackle critical issues in the field of non-communicable disease and precision medicine approaches to these diseases.

The UK investment has been made possible through the Department for Business, Energy and Industrial Strategy-managed Newton Fund. Innovate UK is to invest up to £1.5 million (GBP) in eligible projects. The South African investment was made possible through the South African Department of Science and Technology and South African Medical Research Council (SAMRC) to invest up to R9,5 million (ZAR) in eligible projects. Support to South African Participants from the South African funding agency will observe the limits/boundaries of Innovate UK funds.

About the funding & implementation agencies, and the Newton Fund

South African Medical Research Council (SAMRC), South Africa

The South African Medical Research Council (SAMRC) was established in 1969 with a mandate to improve the health of the country's population, through research, development and technology transfer, so that people can enjoy a better quality of life. The scope of the organisation's research includes infectious diseases and non-communicable diseases, with a strategic objective to help strengthen the health systems of the country – in line with that of the Department of Health.

The SAMRC embarked on a governmental partnership with the Department of Science and Technology to develop innovative health related products and services under its Strategic Health Innovation Partnerships (SHIP) program. SHIP now forms part of the Grants, Innovation and Product Development Unit (GIPD). This incorporates the Self-Initiated Research Grants (SIR), Newton Fund Programmes, Grand Challenges South Africa, Strategic Research Initiatives, Platform & Specialist Scientific Services and Flagship Programmes. The GIPD addresses the need to develop new or improved drugs, diagnostics, vaccines, devices, prevention strategies and treatments to address South Africa's major health problems.

To learn more about the South African Medical Research Council, please visit our website on:

<http://www.samrc.ac.za/home.htm>

Innovate UK, UK

Innovate UK is an executive non-departmental public body established by the UK Government in 2007, and sponsored by the Department for Business, Energy and Industrial Strategy (BEIS). The activities of Innovate UK are jointly supported and funded by BIS and other government departments, the devolved administrations (Scotland, Wales and Northern Ireland) and research councils.

The role of Innovate UK is to support and stimulate business-led innovation in the areas which offer the greatest scope for boosting UK growth and productivity. It promotes, supports and invests in technology research, development and commercialisation. It also spreads knowledge, bringing people together to solve problems or make new advances. Innovate UK advises Government on how to remove barriers to innovation and accelerate the exploitation of new technologies, and works in areas where there is a clear potential business benefit, helping today's emerging technologies become the growth sectors of tomorrow.

For more information about Innovate UK, please visit our website at:

<https://www.gov.uk/government/organisations/innovate-uk>

The Newton Fund

The Newton Fund is a Ministerial-led, high profile programme managed by the UK's Department for Business, Innovation and Skills which aims to strengthen research and innovation partnerships between the UK and 16 emerging (knowledge) economies. The partnership countries are Turkey, **Brazil**, Chile, China, Colombia, Egypt, India, Indonesia, Kazakhstan, Kenya, Malaysia, Mexico, Philippines, South Africa, Thailand, and Vietnam. £735 million will be spent by the UK through the Fund over a 7-year period (2014-2021), with matched funding/effort being provided by the partner countries. The Fund forms part of the UK's Official Development Assistance (ODA), i.e. the UK's support to developing and emerging economies for their socio-economic development (www.newtonfund.ac.uk).

The Newton Fund comprises of 3 broad pillars of activity:

- Pillar 1 (People): improving capacity in research and science, individually and institutionally
- Pillar 2 (Research): facilitating research collaborations on critical socio-economic development challenges in partner countries
- Pillar 3 (Translation): creating collaborative solutions to socio-economic development challenges and strengthening innovation systems.

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Section 1

How to use this document

This document contains the eligibility criteria, key dates, competition process and application form details specific to this competition. This guidance is common to both South African and UK partners for this competition.

Under the rules of this competition, collaborative applications of South African and UK partners should have at least one South African lead partner and one UK lead partner. The lead partner for South Africa and the lead partner for the UK should **submit a collaborative application form to Innovate UK**, along with all requisite additional supporting information.

- **Section 1** - information on eligibility, timescales and terms and conditions common to both South African and UK partners.
- **Section 2** – how to apply
- **Section 3** - details on how to complete the application form for both UK and South African partners of the project.

Please ensure that you read all parts of this guidance carefully before submitting your application.

1.1 Competition overview

The key objectives of this call are to:

- enable new commercial, competitive solutions which address key societal challenges to emerge, by:
 - nurturing new South Africa-UK partnerships which focus on industrial outcomes;
 - accelerating the commercialisation of R&D that will benefit South Africa (and other countries including the UK), with preference given to small and medium-sized enterprises, and on high impact projects which can show near-term results;
 - fostering the identification of new public policies that will correct market failures, to support innovation in both countries; and
 - strengthening overall bilateral relations.

The expected results of the call are as follows:

- Organisations participating in SAMRC and Innovate UK funded projects are positioned effectively in target markets and sectors to engage in innovative technology-driven R&D and/or adoption. As a result, innovative commercial solutions relevant to key challenges faced by South Africa within the focal sectors start to emerge;
- The bilateral R&D community, in targeted markets and sectors, demonstrates an increased awareness of South African and UK science and technological capabilities.
- South African organisations and UK-based companies have increased knowledge and understanding of global innovation and business networks.

- Applicants are required to submit an **identical** collaborative application form to Innovate UK to request funding for the proposed R&D project. SAMRC and Innovate UK will implement an integrated, merit-based project evaluation and selection process. A positive funding decision for R&D projects that request funds from both organisations will trigger:
 - Innovate UK to allocate funds to industry, research and other UK participants; and SAMRC to allocate funds to industry, research and other UK participants.

1.2 Finding partners

Meeting mojo platform

- Innovate UK, in conjunction with the Knowledge Transfer Network (KTN) has launched an online Meeting Mojo platform to enable applicants to find partners.
- All interested applicants should create a profile on Meeting Mojo and search for partners in the database specific to this South Africa-UK competition. When you find a potential partner, you can message them to determine whether you are a good match to apply as part of a project team.
- Please follow the link below and register, giving your full details. NOTE: It will take up to 24 hours to be approved by the site admin before you can then search for partners. Please use the following Meeting Mojo link: <http://southafrica-uk-newtonfund-2017.meeting-mojo.com>
- The Meeting Mojo link is also available on the Innovate UK competition webpage under the “Finding Partners” section.

1.3 Competition scope

This joint call between Innovate UK and the South African Medical Research Council aims to stimulate the development of new affordable gene based diagnostics for specific non-communicable disease that take into account the wide genetic variance of the South African population.

The challenge

The South African health situation is characterized by what is referred to as a quadruple burden of disease. Recent years have seen a great increase in non-communicable diseases (NCDs), with the disease burden for NCD in South Africa reaching twice that of the global average for developing countries. In 2010 NCDs accounted for 39% of all the deaths in the country, with more than 36% of these deaths occurring before the age of 60. Four major themes connected to NCDs are seen as key to tackling this challenge: cardiovascular disease, diabetes, cancer and increasing the life expectancy of infants.

There are a few major non-communicable diseases that have been prioritized in South Africa- cardiovascular disease, diabetes, cancer.

Scope Area 1 - Cardiovascular Disease

The South African Heart and stroke foundation in South Africa reported that about 33 people die per day because of a heart attack, while 60 die per day because of stroke. Premature deaths caused by heart and blood vessel diseases (CVD) occur in people of working age (mainly between 35-64 years). These premature deaths affect the workforce and have a major impact on the economy of the country.

Scope Area 2 - Diabetes

Type-II diabetes mellitus (T2DM) is a non-insulin dependent, genetically, metabolically and clinically heterogeneous syndrome of multi-factorial aetiology. While T2DM mostly seems to be a polygenic disorder, several monogenic forms have also been identified. Among the monogenic forms of diabetes

mellitus (DM), Mature Onset Diabetes of the Young (MODY), whilst more common forms are Type 1 diabetes. The diversity of the disease has certainly impacted on our burden of non-communicable diseases. Three and a half million South Africans (6%) of the population suffer from a form of diabetes and there are many more who are undiagnosed. It is estimated that about 5 million South Africans are pre-diabetic. Diabetes complications occur often and are generally serious, including heart disease, stroke, blindness, amputations and kidney failure. In most cases these complications could have been avoided entirely by early diagnosis and proper treatment.

Scope Area 3 - Cancer

Every year about 100 000 known cases of cancer are diagnosed in South Africa. The total number of deaths from cancer in 2013 was 36 726 (representing 8% of all deaths). This figure reveals that malignant neoplasms were in fact the second most frequent cause of death in South Africa, second only to tuberculosis. Also, cancer killed more people than other non-communicable diseases such as cerebrovascular pathology, hypertension and diabetes.

Patient response to drug treatments and therapeutic interventions in NCDs varies significantly across the population. However, the current health system in South Africa only offers blanket solutions, as existing genetics test panels do not apply to the South African population. Moreover, genetic based testing is not the norm in the South African public health system, primarily because of the high cost of existing tests. Moreover, health inequalities can be observed across the country, with mortality rates in KwaZulu-Natal, Free State and Eastern Cape being double that in the Western Cape. A fragmented public health system and low patient access to diagnostics and treatment facilities in deprived areas add to the challenge.

Scope Area 4: Child Health

The Millennium Development Goals (MDGs) have galvanized much attention but action is not happening fast enough in Africa. Addressing newborn health is a catalyst for improving maternal and child health and accelerating progress towards MDG 4 (child survival) and MDG 6 (HIV/AIDS, tuberculosis and malaria). Statistics South Africa recorded live births in 2013–2015 and the perinatal deaths in 2014, indicate there is much cause for concern. In 2015, 1 084 511 birth registrations were documented. However, 21 908 perinatal deaths were recorded. The top causes of newborn death are infections, prematurity, congenital defects and asphyxia. Low birthweight underlies the majority of newborn deaths and links to maternal health, nutrition and infections such as TB and HIV.

Furthermore genetic screening is not offered effectively in the public care system. There are many gaps and providing efficient diagnostics to inform treatment and disease management are a priority. If you look at neonatal conditions and newborn genetic screening-this is where the precision medicine approach could be used to introduce early intervention tools to save lives. These could be employed to understand paediatric cancer treatment, pharmacogenomics of medication tolerance and dosage.

A perfect example is congenital heart disease. About 10% of babies diagnosed with congenital heart disease (which affects the development, structure and function of the heart) are later diagnosed with neurodevelopmental disorders such as learning disabilities and attention-deficit hyperactivity disorder. As many as 13% of children with severe forms of congenital heart disease also have other types of birth defects. This may be due to being deprived of sufficient blood and oxygen flow during critical moments in brain development. The possibility that there is a more fundamental, genetic reason behind why neurodevelopmental disorders and congenital heart disease often occur together can be determined using the sophisticated tools of genomic sequencing, and look deep within the genome to determine if conditions are genetically linked and enable risk prediction to allow interventions to be put in place while the brain is still growing and developing. This kind of target treatment is the base of precision medicine.

Solutions sought

Diagnosis and treatment of non-communicable diseases needs to use a more patient centric approach and tailored to the current genetic diversity of the population. The disease focus for this call is non-communicable diseases that are most prevalent to the SA population, as well as child mortality. Precision medicine is seen as a development area that could offer a patient centric approach that allows for targeted treatment for specific disease pathways, identify treatment effectiveness for particular groups of patients, and co-develop diagnostics to ensure the right patient gets the right treatment at the right time.

Therefore, this call invites consortia to put forward projects that:

- Aim to develop gene based panels that aid in understanding patient diagnosis and response to treatment for non-communicable diseases in the SA population.
- Utilise genomic information from available databases and the validation of unknown variants that have been discovered in the African population to develop precision medicine diagnostics/ treatments applicable to the genetic makeup of the South African population.
- The solutions should also take into account the needs of deprived sections of the population that do not necessarily have access to private health care, but use the public health care system, where the lack of skills and data analysis capabilities can impede timely diagnosis and adequate treatment.
- Where possible, studies that include patients from the SA public health care system who have been phenotypically and pathologically diagnosed are encouraged to partner with South African Hospitals.
- Where possible studies could also include a pharmacogenetic focus to address adequate patient treatment regimen and cost analysis.

An example would be the co-development of a cost effective diagnostic panel to diagnose a particular cancer that is prevalent in the African population. The consortium may approach the development by partnering with a seasoned industry partner, using a cohort from a South African public care facility and the expertise of a local geneticist to co-develop the gene panel test conducive to the cancer genetics of the South African population. The test could show feasibility of the precision medicine approach, to build a use case for introducing a methodology / treatment strategy/solution.

Another example project could aim to develop a cost effective and/or portable precision medicine solution that can be translated into a South African public clinical care system, thus ensuring market reach.

The above are examples; the call is open to any ideas that address the challenges scoped above.

1.4 Eligibility

1.4.1 Common eligibility criteria

A collaboration proposing an R&D project conducting industrial research that meets the requirements in this section is eligible to apply to this competition and does so in accordance with the national laws, rules, regulations and procedures of their jurisdiction or country.

Project composition

Any team proposing an R&D project that addresses the requirements detailed below is eligible to apply to this competition.

- A South African Project Lead (**SAPL**), responsible for the South African application submission, leading the South African part of the project and communicating with the UK Project Lead. This can be either a South African company or a South African researcher, as per Section 1.4.2 below; and
- A UK registered company Project Lead (**UKPL**), responsible for the UK application submission, leading the UK side of the project and communicating with the South African Project Lead.
 - For UK applicants: the business proportion of total eligible project costs must be 70% or higher; the total of all combined research organisation costs cannot exceed 30% of the overall project costs.
- A joint collaborative application is expected from each consortium per project.
- Ideal duration of the project should be up to 36 months.

Although it is not mandatory, projects that engage an end-user/first customer are strongly encouraged in either side of the consortium.

1.4.2 Applicants from South Africa

Eligible South African applicants are:

- South African companies owned by a South African of any size, registered, based and operating in South Africa. Please note: private large companies are not eligible for funding under this competition.
- South African researchers based in public or private organisations/universities.

1.4.3 Applicants from the UK

Eligible UK applicants are:

- UK companies of any size, registered, based and operating in the UK.
- Academic institutions, other research organisations, public sector bodies and charities undertaking research activity in the UK are also eligible to participate as per Innovate UK's normal funding rules: <https://www.gov.uk/guidance/innovate-uk-funding-general-guidance-for-applicants> but cannot lead the UK side of the project.
- Applications must be business-led on the UK side.

1.4.4. South Africa-UK partnerships

- To be eligible for this competition, projects must be focused on industrial research, which aligns with what SAMRC would consider to be Proof of Concept. This means planned research or critical investigation to gain new knowledge and skills. This should be for the purpose of product development, processes or services that lead to an improvement in existing/ new products, processes or services. Work packages that include elements of Experimental Development will be considered within projects that predominantly target Industrial Research, and can be completed within 36 months.
 - For South African applicants, please refer to the path to commercialisation found within this link: https://www.thedti.gov.za/financial_assistance/Commercialisation.pdf
 - For UK applicants, a full definition of this research category is available here: <https://www.gov.uk/guidance/innovate-uk-funding-general-guidance-for-applicants#funding-rules>.
- UK project leads (UKPL) must collaborate with a South African project lead (SAPL) to form a

consortium to deliver the project. There is no restriction on the number of partners in either the UK or South Africa.

- Proposals must articulate a concise co-development plan with distinct milestones and deliverables toward development of a product, process or solution that can ultimately lead to commercialization.
- Proposals must demonstrate the joint South Africa-UK project team's expertise and capacity to manage the proposed project in their respective countries.
- Building on the principles of a true bilateral partnership, all projects should demonstrate equivalence in effort from the South African and UK partners.
- Successful project participants will be expected to demonstrate that all partners contributing to the R&D project have agreed on IP Rights and the commercialisation plan as part of the final financing agreement process.
- Innovate UK and SAMRC will comply with the Intellectual Property and Research laws of their respective countries.
- Innovate UK and SAMRC will expect successful project participants to put in place a Collaboration Agreement amongst all project partners as part of the conditions of accepting funding.

1.5 Funding

Innovate UK and SAMRC will implement an integrated, merit-based project evaluation and selection process using their existing assessment processes. Innovate UK and SAMRC will then together identify the final list of successful applicants. **All funding organisations reserve the right to apply a portfolio approach across projects in different challenge areas, subject to applications reaching the required quality threshold.**

A positive funding decision for R&D projects that request funds from the funding organisations will trigger:

- Innovate UK to allocate funds to UK participants; and
- SAMRC to allocate funds to South African participants.

Funds will be provided in accordance with the applicable laws, rules, regulations and procedures established by each organisation, and/or in each jurisdiction/country.

Although the individual type and value of individual contributions allocated to a South Africa-UK R&D project may vary, each bilateral project must demonstrate equivalent total effort from each participating country.

Project plans and budgets will be submitted and contracted through a joint application process to include both the UK and SA budgets outlined in each proposal. The milestones must align to the associated budgets.

The SAMRC contractual agreement will incorporate these project plans and associated budgets which form an integral part of the monitoring and progress evaluation of the project. The clear responsibility areas of each consortium member must be articulated. The SAPL will be responsible for ensuring each

project consortium member provides all the relevant information, but the SAPL and the UKPL are responsible to submit all annexures provided by the full consortium, in order to complete the full application.

Projects that only include technological transfer will not be considered for the purpose of this call. Therefore projects must show a co-development pathway.

1.5.1 Financial support – South Africa

Approved projects may be funded by SAMRC, as follows:

Financial support requested from the SAMRC for this specific partnership must be able to demonstrate that their proposed project articulates the clear economic and societal benefit to the general population in South Africa. This is in line with the mandate of the SAMRC and the Newton Fund forming part of the UK Government's Official Development Assistance budget.

More details here: <http://www.newtonfund.ac.uk/about/what-is-oda/> and <http://www.samrc.ac.za/about/about.html>

Expected costs, grant and eligible costs

We expect total project costs of between R 3,000,000 and R 3,200,000 South African Rand for the duration of the proposed project to cover project costs for the South African project partners. Proposals outside of this range can only be considered with prior SAMRC approval.

Eligible Costs

Eligible costs for most SAMRC funding mechanisms include the following (all direct line items must be auditable):

- Personnel: Soft-funded posts for individuals working on the project (e.g. post-docs, students, technicians, project managers) will be funded, provided an accurate estimation of time allocation is provided and they are not already funded from other means.
- Consultants: These may include both local and/or foreign consultants who provide a service or capability that is not available among the project partners but is essential for the completion of project deliverables.
- Equipment: Partial or full support for the cost of equipment may, in some instances, be requested, provided that it is directly required for the project. A budget limitation may apply.
- Supplies, consumables and other direct laboratory or research costs.
- Sub-contracts: These may be to any local or international organization that provides a service or capability that is not available among the project partners but is essential for the completion of project deliverables.
- Travel and accommodation that is directly related to the execution of the project.
- Institutional overhead: An indirect costs rate of 5% to a maximum of R250k per year (or any revised indirect costs rate specified by the SAMRC from time to time) is allowed on selected funding mechanisms only, e.g. for SHIP grants. An institutional overhead is not permissible on self-initiated research and Extra Mural Unit funding.
- This call is open to small and medium private enterprises including for profit entities as defined by the CIPC.

Ineligible costs

Ineligible costs include the following:

- Salaries of permanent or fixed term staff, e.g. tenured staff, professors, etc., that are fully covered by the host institutions and company overheads.

- Purchase or construction of a building.
- Rental costs for space that is owned by the institutions participating in the project.
- Recruitment or retrenchment costs for staff.
- Purchase of office furniture.
- The UKPL is not expected to comply to this criteria

If research equipment is purchased using SAMRC funding, unless specified otherwise by the specific funding mechanism, it becomes the property of the host institution. Under no circumstances may equipment become the property of the individual researcher to whom the funding was allocated. The equipment may not be removed from the host institution and/or transferred to another institution without the express written approval of the host institution and concurrence by the SAMRC. The institution must take responsibility for any necessary maintenance of and insurance on the equipment.

All applications / proposals submitted by SA Based Project Leaders (SAPL) for funding must be signed off by an authorized representative of the applicant's institution. It is the responsibility of host institutions to verify and certify the appropriateness, completeness and correctness of all information submitted by their researchers to the SAMRC as part of their applications for funding. By co-signing applications institutions commit themselves to administering the allocated funding according to the relevant Terms and Conditions of Funding.

Full details of the applicable terms and conditions for SAMRC funding can be found here: <http://www.samrc.ac.za/funding/SAMRCTermsConditionsFunding.pdf>

1.5.2 Financial support – UK

The UK funding element will also be part of the Newton Fund and therefore UK applicants must be able to demonstrate that there is a clear economic and societal benefit to the general population in South Africa from their proposed project. This is in line with the Newton Fund forming part of the UK Government's Official Development Assistance budget. More details here: <http://www.newtonfund.ac.uk/about/what-is-oda/>.

Expected costs, grant and eligible costs

We expect total UK project costs of between £300,000 to £500,000, giving rise to total UK grant of no more than £350,000. Proposals outside of this range can only be considered with prior Innovate UK approval.

Capital Equipment: Expenditure on equipment is eligible under this competition as long as all materials are directly related and essential to the goals of the project. Please note that all equipment fully funded by the grant and exclusively used on this project that presents a residual value greater than £1 at project end will have to be donated to the recipient country, in compliance with ODA rules.

Full details of what project costs are eligible for funding from Innovate UK can be found at: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/552904/Project_costs_Innovate_UK_2.pdf

Proportion of total eligible cost and grant per type of applicant

- The business proportion of total eligible project costs must be 70% or higher; the total of all combined research organisation costs cannot exceed 30% of the overall project costs.
- The SAPL is not expected to comply to this criteria

Type of research and percentage of eligible costs funded

- Projects must be focused on industrial research. A full definition of this research category for UK applicants is available at: <https://www.gov.uk/guidance/innovate-uk-funding-general-guidance-for-applicants#funding-rules>
- Work packages that include elements of Experimental Development will be considered within projects that predominantly target Industrial Research. Those work packages which are primarily Experimental Development will receive the appropriate grant percentage.
- As per Innovate UK's rules, businesses can attract the following percentages of eligible costs from public funding for Industrial Research and Experimental Development:

Applicant Business Size	Industrial Research	Experimental Development
Micro/small ¹	70%	45%
Medium	60%	35%
Large	50%	25%

- Research organisations, public sector organisations or charities (as defined as eligible according to Innovate UK's normal funding rules) can claim up to 100% of eligible costs.
- Universities can claim up to 80% of Full Economic Costs as determined via the JeS application system).

State Aid:

- The funding percentages outlined above are compliant with EU State Aid rules.
- For more information on funding and state aid definitions please see: <https://www.gov.uk/guidance/innovate-uk-funding-general-guidance-for-applicants#funding-rules>

Official Development Assistance (ODA) compliance:

- All submitted applications must be checked for ODA compliance. Details on ODA compliance for Newton Fund projects can be found here: <http://www.newtonfund.ac.uk/about/what-is-oda/>
- **If projects are not deemed by Innovate UK to be compliant with ODA, Innovate UK reserves the right to not submit the application for assessment.**

1.6 Application overview

This is a single stage competition that opens for applicants on 30th January 2017.

- The application process consists of registration, followed by submission of the requisite application form and appendix.
- **Either** the SA Project Lead (SAPL) **or** UK Project Lead (UKPL) must register through the Innovate UK competition website, at least one week before the competition closes.
- Upon registration, the registrant will be emailed an application form template which must be completed in collaboration with their consortium partners in the UK and South Africa.

¹ The definition of micro, small and medium-sized enterprises used by Innovate UK is contained in the European Commission Recommendation of 6 May 2003 concerning the definition of micro, small and medium-sized enterprises (2003/361/EC), which took effect on 1 January 2005 or any subsequent definition provided by the Commission. This can be found at: http://ec.europa.eu/enterprise/policies/sme/facts-figures-analysis/sme-definition/index_en.htm

- The registered consortium member must ensure the full application form including all annexures are submitted before the application deadline.
- The collaborative application must reflect a combined effort from both the UKPL and SAPL, be written in English, and submitted to Innovate UK using the prescribed process by the stated application submission date 12 noon GMT.

Ineligible/rejected applications

- **Applications that do not meet the stated competition eligibility criteria as set out in this document, including ODA compliance.**
- **Project proposals that are not in the prescribed template. Hand-written applications will not be accepted.**
- **The SAMRC and Innovate UK will not accept applications via email, they must be submitted as per Innovate UK's standard process only.**
- **Applications submitted to the incorrect organisation or using the incorrect application form for the competition.**
- **Applications in which only one side (i.e. one country) has submitted proposal/application.**

1.7 The assessment and evaluation process for this competition

1.7.1 Assessment process

This competition will follow a single stage process.

SAMRC and Innovate UK will initially screen all the applications received by the application deadline for completeness of information as per the competition guidelines.

It is the responsibility of the Project Leads (UKPL and SAPL) to ensure that all of the necessary information for the application has been gathered from UK and South African partners and is submitted prior to the application deadline. If there is specific information missing in an eligible application, SAMRC and Innovate UK may at their discretion contact the lead applicants requesting them to provide the missing information within a specified timescale.

SAMRC and Innovate UK will then compile a list of the complete project proposals received and compare it with each other.

The final list of complete proposals under the competition will be shared between SAMRC and Innovate UK. These proposals will then undergo assessment in their respective countries.

1.7.2 Evaluation and selection of R&D projects

To ensure the effective delivery of the competition and reinforce the principles of bilateral partnership, SAMRC (for South Africa) and Innovate UK (for UK) will conduct parallel but independent evaluations of all applications based on the project criteria and eligibility and requirements specified in the competition guidance, followed by a joint review. Together, they will make a joint recommendation on projects to be shortlisted for funding, based on the feedback and recommendations received from the South African assessment and the Innovate UK assessment.

Assessors in both countries will review the application form and appendices along with associated supporting documentation (where appropriate).

Assessment process in the UK and South Africa

All applications will be evaluated by Innovate UK and SAMRC according to the standard assessment process, full details of which are available at: <https://www.gov.uk/guidance/innovate-uk-funding-general-guidance-for-applicants>

Each application is assessed by up to five independent expert assessors against the joint scoring system for the gateway and criteria questions. Each assessor completes and submits a score-sheet with comments for each application they assess. A report is then compiled to identify ranked order of all applications.

Joint review

Following the independent evaluations in South Africa and the UK, a joint review committee will be held, comprising representatives from the South African and UK funding agencies. SAMRC and Innovate UK will then, together, identify the final list of successful applicants.

All funding organisations reserve the right to apply a portfolio approach across projects in different challenge areas, subject to applications reaching the required quality threshold. The final decisions on joint approvals in the call will be made at that time.

The decision to offer financial support and the conditions under which the support will be given is a prerogative of each country's financial institutions, which will independently analyse requests for funding in accordance with the operating policies of each institution.

SAMRC and Innovate UK will communicate the final decision in writing (via e-mail/letter) to all the SAPL and UKPL applicants respectively.

1.8 Key dates

If you are intending to submit an application to this competition, please make a note of the key dates below. The deadlines below are absolute and final. **Please note that submission deadlines are 12 noon (GMT) in the UK and 2pm (Local Time) in South Africa.** Any applications after this time will not be accepted.

Competition open	30th January 2017
Closing of registration for UK applicants (applicants need to have registered their intention to submit an application with Innovate UK)	10th May 2017
Competition close	17th May 2017
Anticipated release date of results	11th August 2017
Earliest project start date	1st December 2017

Important Note: Please do not leave your submission to the last minute.

If any technical difficulties arise or if you identify any errors in your submission, we will not be able to grant an extension to the above deadlines.

It is your responsibility to ensure you follow the competition guidance rules and in doing so allow sufficient time to complete all of the competition requirements described in this document.

Section 2

Information for applicants

2.1 How to apply for this competition



REGISTER

To enter this competition, the consortium should appoint a Project Lead for the UK side of the consortium (UKPL) and a Project Lead for the South African side of the consortium (SAPL).

- The competition will be utilising the Innovate UK platform. Therefore, the UKPL or SAPL must register via the competition website at:
<https://www.gov.uk/government/collections/innovation-grants-for-business-apply-for-funding>
- This does not mean that the SAPL is at any disadvantage.
- The onus is on both the partners to contribute effectively in compliance with all the rules herein stipulated to ensure a successful application.

Registrants to the Innovate UK system: You will receive an email acknowledgement of your registration immediately and then an additional email containing a username and password for our secure upload facility, along with a unique application form and number. Following your registration acknowledgement, please allow up to 48 hours for receipt of your email application form

Please note: As stated in the above Key Dates section, the last date for UK applicants to register for this competition is 12 noon (GMT) 10th May 2017.

Multiple project applications

If you wish to apply for funding for more than one project, register once and then request additional application forms by emailing Innovate UK's Customer Support Service support@innovateuk.gov.uk. You will then be able to make separate submissions by completing a unique application form for each separate project, ensuring the appropriate application form is uploaded to the site under the correct application number.

Please note: If repeat/duplicate applications for the same project are submitted, the repeat/duplicate applications will be ineligible and not assessed.



DOWNLOAD
documents

Once you have received your unique username and password, you can log into the secure website to access additional documentation relevant to the competition. For this competition, these are:

- Appendix E template, for South African Applicants only
- Finance forms for each UK industry partner



COMPLETE documents

Each consortium is required to submit the following documents:

- Application Form supplied with your unique application number for this competition
- Appendices A-D (please see Section 3 of this document for more information)
- UK Finance Form (for every UK industry partner in your project)
- Je-S Submission pdf Output Document (for every UK academic partner in your project – if any)
- SA Milestone and Budget Form (Appendix E)(For every SA partner in your project and to include the relevant UK partner project cost allocations)

The appendices allow you to provide supporting information for the assessors on your project. The finance forms provide details on your project costs for each partner in your project consortium. For information on eligible project costs and the partner finance forms please click here

<https://www.gov.uk/government/publications/innovate-uk-completing-your-application-project-costs-guidance>

Do not leave it until the last few days to complete your submission documents. If an application does not include all required appendices and forms, as detailed above, it will be deemed ineligible and will not be set for assessment.



UPLOAD documents

Please ensure that you allow plenty of time to upload your completed documents for submission to the competition. Our submission close dates can be very busy which means that upload can take some time. We recommend that you upload your application in plenty of time, as the deadline is final.

To upload your application documents, log on to the secure website using the details supplied with your secure username and password. See detailed instructions here: <https://www.gov.uk/guidance/innovate-uk-funding-general-guidance-for-applicants>

If repeat/duplicate applications for the same project are submitted, then only the most recent version will be accepted.



NOTIFICATION received

Once the competition submission deadline is reached, SAMRC and Innovate UK will initially screen all the applications received for completeness of information, eligibility of consortium members and ODA compliance, as per the competition guidelines. If any of these criteria is not fulfilled, the application will not be assessed and will be withdrawn from the competition.

The UKPL and SAPL of all assessed applications will be notified of the outcome of your application on the date stated in the above Key Dates section. The UKPL will be notified by Innovate UK, the SAPL will be notified by SAMRC.



**FEEDBACK
received**

Each UKPL will be able to access feedback on their application from the assessors by logging into the secure site four weeks after the notification date published in the Key Dates section. For further information on what happens after you submit your application please click here: <https://www.gov.uk/guidance/innovate-uk-funding-general-guidance-for-applicants>

We will give feedback to unsuccessful applicants approximately four weeks after you have been notified of the decision. The lead applicant can access the UK Assessor feedback by logging on to the secure website where you uploaded your application documents. It is the responsibility of the UKPL to communicate the feedback to the rest of the consortium. No additional feedback can be provided and there will be no further discussion on the application.

The SAMRC will convey an email feedback to the SAPL from the SA assessors within four weeks of the notification date published in the Key Dates section. It is the responsibility of the SAPL to communicate the feedback to the rest of the consortium. No additional feedback can be provided and there will be no further discussion on the application.

2.2 Finance forms and project costs

UK applicants:

Information on project finances is available in the guidance 'Your Project Costs' on our website: https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/552904/Project_costs_Innovate_UK_2.pdf

South African applicants:

Information on financing South African partners can be found in our website: <http://www.samrc.ac.za/funding/SAMRCTermsConditionsFunding.pdf>

A detailed template is provided for SAPL to complete in co-operation with the UKPL and remaining consortium as Appendix: Project Plan Template

2.3 How to find out more (Data Protection Act 1998, Information Security, etc)

If you require further information or have a query regarding this competition, please contact:

UK

Innovate UK, Customer Support Services:

E-mail: support@innovateuk.gov.uk

Tel: 0300 321 4357 (Monday-Friday 9am-5:30pm)

South Africa

South African Medical Research Council, Grants Innovation and Product Development Unit

Name: Babalo Ntlebi

Email: babalo.ntlebi@mrc.ac.za

Tel: +27 21 9380231 (Monday to Friday 9:00am-4:30pm)

Section 3

3.1 The application form & required documents

The application form (UK and South African partners)

This section explains the structure of the application form and offers guidance on the information to include in each section. This section is applicable to both the UK and South African partners for the completion of the collaborative application form.

Submission of one completed application form per project, in English, to Innovate UK is mandatory. Applications in any other format will not be accepted. Upon registration, each registrant will receive a unique application form and user ID for their application.

The UK and South African Project Leads for each application should ensure that they liaise and coordinate to provide the collaborative application form and all associated appendices/documents required. If an application does not include all appendices and forms, it will be deemed ineligible and will not be set for assessment.

Multiple project applications

If you wish to apply for funding for more than one project, register once and then request additional application forms by emailing Innovate UK's Customer Support Service support@innovateuk.gov.uk. You will then be able to make separate submissions by completing a unique application form for each separate project, ensuring the appropriate application form is uploaded to the site under the correct application number.

Please note: If repeat/duplicate applications for the same project are submitted, then only the most recent version will be accepted.

Applications should include a technical, business and financial component. The technical component describes the innovation, gives details of the proposed technical approach and contains a research & development Program Plan. The business component covers the market analysis, commercialization plans, and benefits to project participants, project organization, and the management plan. The financial component covers the cost of the project, the funding required and why public support is needed.

The proposal will also provide a description of the companies and other participants. It is important to be clear, concise, and to the point when filling each section so to best present the merit of your project in an effective manner.

The structure of the application form is as follows:

- Application details
- Summary of proposed project
- Gateway question: scope
- **Section 1 – The Challenge (4 questions)**
- **Section 2 – Project Details (4 questions)**
- **Section 3 – Project Costs (2 questions)**
- Public description of the project
- Finance summary tables for both UK and South African partners

Sections 1 to 3, highlighted above, address specific questions; these are listed in the following tables with guidance notes. When you submit your application form, it will be assessed according to how well it answers the specific questions. Each question has an equal weighting of 10 marks per question.

It is important that you address and respond to each question clearly. To help you, the guidance below provides an explanation of what is required for each question. The guidance notes are not intended to be exhaustive; you should develop your own responses based on your own skills, knowledge and experience.

When completing the application form it is important to take into account that the space provided is to enable you to give the specific amount of information for each question as you feel appropriate for the application. You are encouraged, therefore, to utilise fully all available space and any appendices at your disposal.

Please ensure that you upload the final and complete version of your application by the deadline. It is your sole responsibility to ensure you upload the application form intended for submission and assessment and not a blank or incomplete form.

The UK and South African Project Leads should coordinate to ensure that:

- a collaborative application form, all appendices and the UK Finance Forms, in English, as detailed below is submitted to Innovate UK

If an application does not include all appendices and forms, it will be deemed ineligible and will not be set for assessment.

Key tip: number the answers to each question and use headings for the answer to each question.

Important: Please note the following process requirements for the application form:

- You may only use the application form provided. It contains specific information including a unique reference number for your project (for UK applicants).
- The application form contains specific fields and it is important that you complete each field and present a fully completed form. Incomplete forms will be rejected.
- The application form must not be altered, converted or saved as a different version of Microsoft Word.
- The space provided in each field of the form is fixed and you must restrict the content of your responses in each of the fields to the space provided. The typeface, font size and colour are predetermined and cannot be changed. Illustrations and graphics cannot be included in the application form. **Please check your completed application form in PRINT VIEW: any text that can't be seen in this view or when the form is printed will not be assessed.**
- The light grey shaded fields are completed automatically from other information entered on the form, e.g. the total columns of a table. These cannot be overwritten.

Application details

Application details	
Field	Guidance
Competition title	This field will show the full name of the competition to which the form applies. You do not need to enter anything here
Project title	Enter the full title of the project.
Project timescales	Enter the estimated start date and its planned duration. These are indicative at this stage and are not guaranteed
UK Project Lead (UKPL) organisation name	Enter the full registered name of the UK lead partner for the project and the company number (as provided by Companies House). Please note: the lead organisation will be the main point of contact between the Innovate UK and the UK project team.
UK Project Lead (UKPL) organisation contact details	Enter the full name, postcode, e-mail address and telephone number of the main point of contact between the Innovate UK and the project.
South African Project Lead (SAPL) organisation name	Enter the full registered name of the South African project lead (SAPL) organisation for the project. Please note: the lead organisation will be the main point of contact between SAMRC and the South African project team.
South African Project Lead (SAPL) contact details	Enter the full name, address, postal code, e-mail address and telephone number of a named point of contact between SAMRC and the project.
Have any of the project partners previously received Newton funding?	Please select Yes/No. If yes is selected, please confirm which project partner has previously received Newton funding or is in the process of receiving Newton funding, from which Delivery Partner and under which Newton Fund activity.
Application number	This is completed automatically and is the reference that you should use on all correspondence (this is the 5 or 6 digit number after the dash).
Summary of proposed project (not scored)	
Question	Guidance
Please provide a short summary of the content and objectives of the project including what is innovative about it.	This is an opportunity to provide a short summary of the key objectives and focus areas of the project. It is important that this summary is presented in reference to the main outline of the project, with sufficient information to provide a clear understanding of the overall vision of the project and its innovative nature. This summary is not scored, but provides an introduction of your proposal for the benefit of the assessors.

Gateway question: Scope (not scored, Yes/No answer)

Important note:

If the majority of evaluators/assessors consider that the answer to the Scope Gateway question is 'No', then the application will not be approved for funding. Guidance on the 'Gateway Question: Scope' question is, therefore, critically important and is provided below.

Question	Guidance
Gateway question: Scope - How does this application align with the specific competition scope?	All applications must align with the specific competition scope criteria as described in the relevant competition Brief. Note: To demonstrate alignment, you need to show that a clear majority of the project's objectives and activities are aligned with the specific competition. In forming their judgment on this, the assessors will also consider whether the application addresses the research objectives and topics it claims to. It is important, therefore, for you to understand fully the background, challenge and scope of the competition, as outlined in this document.

Section 1: The challenge (10 points per question = 40 points in total)

Question	Guidance
1. What is the business opportunity that this project addresses?	Outline the business opportunity and what the project team needs to do to successfully address it within the desired timeframe and cost. Describe the essential customer need that was identified and highlight the nature of the problems or issues facing you and/or your potential customers and how the intended outputs of the project will address these problems and issues.
2. What is the size of the market opportunity that this project might open up?	Describe the size of the market opportunities that this project might open up, including details of: <ul style="list-style-type: none">• What your product, process and/or service is offering in relation to existing products, processors and/or services better than others and what are the unique features• current nature of the specific market(s) at which the project is targeted (for example, is it characterised by price competition amongst suppliers? Is it dominated by a single leading firm?)• the dynamics of the market including quantifying its current size, actual and predicted growth rates• from the UK business partner perspective, what is the projected market share for the project outcome, with justification in the light of any potential competitors• the potential to create value-added for the both the UK and/or South Africa. For highly innovative projects (see question 6) where the market may be unexplored, explain: <ul style="list-style-type: none">• what the route to market could or might be• what its size might be• how the project will seek to explore the market potential.

	<p>Describe and clearly quantify, from the UK business partner perspective, the return on investment that the project could achieve and provide relevant source data references.</p> <p>Where possible, from the UK business partner perspective, provide evidence for your statements about the addressable market for project outcomes and outline your strategy for developing market share.</p>
<p>3. How will the results of the project be exploited and disseminated?</p>	<p>List or describe the potential exploitable outputs of the project such as:</p> <ul style="list-style-type: none"> • products or services • processes • applications <p>Then describe how these outputs will be exploited including, where applicable, the route to market; protection of intellectual property rights; reconfiguration of the value system; changes to business models and business processes and other methods of exploitation and protection.</p> <p>Detail the early, pre-project IP agreement with your partner, addressing the following topics:</p> <ul style="list-style-type: none"> • how you will treat your respective IP entering the project; • how you will treat IP being developed within the project; • how you will treat IP after the project; <p>Note that the IP agreement must reflect a reasonable allocation and a fair return for both partners on their investment.</p> <p><i>Indicate any early agreement with your partner on splitting export markets/ sales /revenue licensing, etc.</i></p> <p>Where helpful to the exchange of best practice, and not damaging to commercial interests, the results from this work should be made public on a voluntary basis and a strategy for dissemination of generic outputs from the funded project should be included.</p> <p>PLEASE NOTE: Where UK research organisations are involved in a project and funded for undertaking non-economic activity, we will expect to see evidence in the answer to this question of plans to disseminate their project outputs over a reasonable timescale. The requirement for dissemination of research results intends to secure wider benefit from the higher level of public support given to research organisations. For further information, please click here: https://www.gov.uk/guidance/innovate-uk-funding-general-guidance-for-applicants#funding-rules</p> <p>The South African Applicant may refer to the regulation in terms of section 17 of the Intellectual Property Rights from Publicly Funded Research and Development Act, 2008 (IPR PFRD Act no: 51 of 2008). For more details:</p>

	<p>http://www.dst.gov.za/images/pdfs/IPR%20Act%20of%202008.pdf and http://www.dst.gov.za/images/pdfs/IPR_PFRD_Act_Regulations_August_2010_2.pdf</p>
<p>4. Why is the project eligible for Official Development Assistance (ODA) funding? What beneficial outputs is the project expected to deliver to those inside and outside of the consortium, and over what timescale?</p>	<p>To be eligible for a Newton Fund grant, applicants must clearly explain and give evidence for why and how their project fits within scope for Official Development Assistance (ODA).</p> <p>A project should not only demonstrate high industrial relevance and commercial potential, but must also demonstrate that it will have a positive impact upon the economic development <i>and</i> social welfare of the Newton partner country, beyond primary commercial interests. Proposals that do not demonstrate how they aim to further sustainable development (and thereby contribute to a reduction in poverty), or improve the welfare of the Newton partner country's population, will be considered out of scope.</p> <p>For Question 4 applicants must clearly state and give evidence for how their project will:</p> <ul style="list-style-type: none"> • Create outputs to be carried out in the Newton Fund partner country • Create outputs leading to clear and widespread socio-economic benefit for the population of the Newton Fund partner country, <p>Benefits to those outside the consortium and to consortium participants should be considered and you should make a clear distinction between the two. All applications must clearly demonstrate that wider socio-economic benefits will accrue outside of the consortium in the Newton partner country in a short- to medium-timeframe (3-15 years); and clearly elaborate what those benefits are and to whom.</p> <p>For further information on Official Development Assistance and ODA compliance please see: http://www.newtonfund.ac.uk/about/what-is-oda/</p> <p>To understand technology commercialisation in South Africa for more information refer to a publication from the South African Department of Trade and Industry: http://www.thedti.gov.za/financial_assistance/Commercialisation.</p>

Section 2: The project details	(10 points per question = 40 points in total)
Question	Guidance
<p>5. What technical approach will be adopted and how will the project be managed?</p>	<p>Provide an overview of the technical approach including the main objectives of the work. Describe the main areas of work together with their resource and management requirements.</p> <p>In evaluating this the assessors will consider these questions:</p> <ul style="list-style-type: none"> • is the technical approach and methodology appropriate to the needs of the project and are the innovative steps achievable through the proposed approach? • is the application sufficient in comparison to the complexity of the project? For example, is there sufficient detail to understand the tasks involved and the resources required? • is the timing of key milestones realistic? • is there demonstration of sufficient resource commitment and capability to undertake the project? • are clear management reporting lines identified? <p>Describe rival technologies and alternative R&D strategies and describe why your proposed approach will offer a better outcome.</p> <p>You must provide a milestone based project plan.</p> <ul style="list-style-type: none"> - UK applicants please submit Appendix B to satisfy this criteria, do not use the space provided to answer this question. - SA applicants please submit Appendix E to satisfy this criteria, do not use the space provided to answer this question. Please note that UK applicants are required to provide the SAPL with information to assist in the completion of this appendix. <p>For detailed guidance on what to include in the plan, please see Sections 3.3 and 3.4.</p>
<p>6. What is innovative about this project?</p>	<p>Identify the extent to which the project is innovative both commercially and technically.</p> <p>In evaluating this section assessors will consider these questions:</p> <ul style="list-style-type: none"> • does it push boundaries over and beyond current leading-edge world science and technology? • is it looking to apply existing technologies in new areas? <p>Highlight and explain the timeliness and novelty of the research aspects of the project in an industrial and/or academic context.</p> <p>Describe any evidence you have to substantiate your belief that the intended work is innovative. This could include the results of patent searches, competitor analyses, literature surveys, etc. If applicable, you should also outline your own background intellectual property rights, as related to the project.</p> <p>You may additionally consider:</p> <ul style="list-style-type: none"> • What is current "best practice"?

	<ul style="list-style-type: none"> • What are current limitations to innovation and how will the project overcome them? This is an opportunity to elaborate on the shortcomings that exist in the proposed area of innovation as a prelude to the description of the innovation and how it can overcome these shortcomings. Current limitations could include: high cost, sub-optimal performance, lack of attention to specific market opportunities, e.g. poor suitability to high-or-low-end markets, size, compatibility, non-conformance to standards, etc; • Diagrams and tables could be included in Appendix B to help describe the innovation. What is the patent situation, including background patents and the potential for new patents? Are there any obligations to other agencies that have supported any part of the innovation development? • Which standards relate to the developed product? Will the proposed product meet current and/or emerging standards?
<p>7. What are the risks (technical, commercial and environmental) to project success? What is the project's risk management strategy?</p>	<p>SAMRC and Innovate UK both recognise that projects of this type are inherently risky, but seek assurance that the projects they fund have adequate arrangements for managing this risk. Focus, therefore, on the arrangements for managing and mitigating risk as follows:</p> <ul style="list-style-type: none"> • identify the key risks and uncertainties of the project and provide a detailed risk analysis for the project content and approach, including the technical, commercial, managerial and environmental risks as well as other uncertainties (e.g. ethical issues) associated with the project. The main risks should then be rated as High/Medium/Low (H/M/L) • state how the project would mitigate these key risks. You should address all significant and relevant risks and their mitigation • identify key project management tools and mechanisms that will be implemented to provide confidence that sufficient control will be in place to minimise operational risk and, therefore, promote successful project delivery. This should include the arrangements for managing the project team and its partners.
<p>8. Does the project team have the right skills and experience and access to facilities to deliver the identified benefits?</p>	<p>Describe the track record of the project team members in UK and South Africa undertaking and exploiting the results of research and development projects, to show your capability to develop and exploit the technology.</p> <p>In evaluating this, the assessors will consider whether:</p> <ul style="list-style-type: none"> • the project team has the right available mix of skills and experience (in both countries) to deliver the project successfully • the project team's formation objectives are clear and if it would have been formed without this funding support • there is additional benefit demonstrated from the collaboration, for example, increased knowledge transfer; and if the consortium is greater than the sum of its parts – how the organisations working together will achieve more than if they were working individually.

Section 3: Project costs Question	(10 points per question = 20 points in total) Guidance
<p>9. What is the financial commitment required for the project?</p>	<p>Indicate the anticipated project cost making clear the level of contribution from any project participants and the level of funding required from SAMRC and Innovate UK. This information should be provided in the financial summary table in the application form.</p> <p>If a project partner is not proposing to claim a grant for their part of the project, then it must still show its costs in the finance summary table and describe them in the answer to this question so that the assessors can evaluate the whole project. However, the detailed finance forms will not be required for UK partners not requesting grant.</p> <p>Supporting information and explanation for project costs should be provided in this section of the form. Detailed cost information is required in the finance forms for each country. The information and explanation must be consistent with the category of research & development being undertaken within each work package.</p> <p>UK partners: Please see the guidance section of the Innovate UK website for further details on UK funding: https://www.gov.uk/guidance/innovate-uk-funding-general-guidance-for-applicants#funding-rules</p> <p>South African partners: Please see more information on the financial support provided by SAMRC at: http://www.samrc.ac.za/funding/SAMRCTermsConditionsFunding.pdf</p> <p>Important (only for UK partners): If the project spans more than one type of funding (for example, because significant work packages are in both industrial research and experimental development), you must describe and justify the breakdown of costs between them within the answer to this question.</p> <p>In evaluating this the assessors will consider the following questions:</p> <ul style="list-style-type: none"> • Is the budget realistic for the scale and complexity of the project? • Does the financial support from this competition fit within the limits set by the specific competition? • Is a financial commitment from other sources demonstrated for the balance of the project costs? • Has a realistic budget breakdown been provided? • Have any work package breakdowns been described and justified adequately?

	<p>UK partners: detailed guidance on eligible and ineligible project costs is provided on the Innovate UK website: https://www.gov.uk/government/publications/innovate-uk-completing-your-application-project-costs-guidance</p> <p>Please note: For UK Research Organisations, the costs of Post Graduate Research Students are no longer eligible to be included in project costs. This is in line with current Research Council guidelines. Please refer to the guidance via the above link for further details.</p> <p>South African partners: detailed guidance on eligible and ineligible project costs is provided on the SAMRC website: http://www.samrc.ac.za/funding/SAMRCTermsConditionsFunding.pdf</p> <p>Please ensure that all key points relating to the finances of your project that you wish the assessors to consider are included in the main body of your application form, or in the relevant appendix, as these are the key documents used within the assessment process.</p>
<p>10. How does financial support from Innovate UK and SAMRC add value?</p>	<p>The project should have an obvious advantage and added value resulting from the technological cooperation between the participants from the two countries (e.g. increased knowledge base, commercial leads, access to R&D infrastructure, etc)</p> <p>Please provide evidence that:</p> <ul style="list-style-type: none"> • successful delivery of your project will increase the total amount of money the project team spends on research & development in UK and South Africa <p>And either:</p> <ul style="list-style-type: none"> • why the funding is required for the project to be able to proceed <p>or</p> <ul style="list-style-type: none"> • how SAMRC / Innovate UK funding would allow you to undertake the project differently (e.g. more quickly, on a larger scale, etc) and why this would be beneficial to South Africa and the UK <p>The project should demonstrate the contribution of the participants from both countries on an equal base, and the project must be equally significant to both UK and South African participants.</p>

Public description of the project (not scored)

Question	Guidance
<p>If your application is successful, Innovate UK and SAMRC will publish the following brief description of your proposal. Provision of this description is mandatory but will not be assessed.</p>	<p>To comply with UK Government practice on openness and transparency of public-funded activities, Innovate UK and SAMRC will publish information relating to funded projects. Please provide a short description of your proposal in a way that will be comprehensible to the general public. Do not include any commercially confidential information, for example intellectual property or patent details, in this summary.</p> <p>Whilst this section is not assessed, provision of this public description is mandatory. Funding will not be provided to successful projects without this.</p>

Finance summary table

<p>Column 1 Organisation name</p>	<p>Please provide the full names of the (lead) organisations (both UK and South Africa on separate rows) and any participants in the project consortium (organisation names as noted in Companies House /Companies and Intellectual Property Commission (CIPC) Registration on separate rows below. Please indicate Parent Organization, if applicable.</p> <p>Note to researchers: The institute of employment must be stipulated.</p>																
<p>Column 2 Organisation registration number</p>	<p>UK partner: Companies should provide the Company Registration Number (as noted in Companies House). UK Research Organisations should enter their RC number/Charitable status/legal entity registration number, etc.</p> <p>South African Partner: Companies should provide the CIPC registration number. All other non-profit and SA Research Organisations should enter the entity’s relevant registration number according to the fiduciary requirements the institute abides.</p>																
<p>Column 3 Enterprise category</p>	<p>UK partners: Please select your Enterprise Category. (SME definition below is based on the EU definition for UK applicants. For other definitions, please check the competition website: https://www.gov.uk/guidance/innovate-uk-funding-general-guidance-for-applicants#funding-rules</p> <table border="1" data-bbox="574 1556 1385 1713"> <thead> <tr> <th>Enterprise category</th> <th>Headcount</th> <th>Turnover</th> <th>Balance sheet total</th> </tr> </thead> <tbody> <tr> <td>Medium sized</td> <td><250</td> <td><= €50 million</td> <td><= €43 million</td> </tr> <tr> <td>Small</td> <td><50</td> <td><= €10 million</td> <td><= 10 million</td> </tr> <tr> <td>Micro</td> <td><10</td> <td><= €2 million</td> <td><= 2 million</td> </tr> </tbody> </table> <p>South Africa: Researchers do not have to comply with this guideline. Private large companies are not eligible for funding under this competition.</p>	Enterprise category	Headcount	Turnover	Balance sheet total	Medium sized	<250	<= €50 million	<= €43 million	Small	<50	<= €10 million	<= 10 million	Micro	<10	<= €2 million	<= 2 million
Enterprise category	Headcount	Turnover	Balance sheet total														
Medium sized	<250	<= €50 million	<= €43 million														
Small	<50	<= €10 million	<= 10 million														
Micro	<10	<= €2 million	<= 2 million														
<p>Column 4 Postcode</p>	<p>Please provide the postcode of each organisation participating in the project.</p>																
<p>Column 5</p>	<p>Please list the total contribution to be made to the project by each organisation. For the UK submission, all applicant figures in cols 5-9 must be in £ at the stated exchange rate. For South African</p>																

Contribution to the project by each organisation (£)/(ZAR)	partners, all figures in cols 5-9 must be in South African Rand (ZAR) at the stated exchange rate.
Column 6 Funding sought from Innovate UK value in (£)	Please enter the funding sought from Innovate UK for each UK participant organisation in the consortium for this competition. See Col 5 above.
Column 6 Funding sought from SAMRC value in (ZAR)	Please enter the funding sought from SAMRC for each South African participant organisation in the consortium for this competition. See Col 5 above.
Column 7 Other funding from public sector bodies (£)/(ZAR)	Please include any funding for the project from any other public sector bodies that has been applied for separately, and not as part of this competition. Funding from other public sector bodies might include other applications to research councils, other government departments, devolved administrations, other public sector organisations and some charities. The purpose of this column is to provide Innovate UK and SAMRC with information on the total public funding for the project. See Col 5 above.
Column 8 Total (£)/(ZAR)	The total cost of the project – this is the sum of columns 5, 6 and 7 and will be entered automatically.
Bottom Row Total (£)/(ZAR)	The total of each column will be entered automatically.

3.2 Project appendices for the collaborative application form to be submitted to Innovate UK – applicable to both UK and South African applicants

Appendices are required in addition to the collaborative application form submitted to Innovate UK. **Appendices must be submitted in English alongside the collaborative application form.** It is important to note that these are intended to contain supporting information and not substantive elements of answers to the application form questions. Do not, therefore, use the appendices as an overflow to the collaborative application form.

In order that evaluators/assessors can open and read the appendices, **for all collaborative applications** each appendix must:

- conform to the maximum length specifications listed below
- be submitted in Portable Document Format (.pdf)
- be legible at 100% zoom/magnification
- display prominently the 'Project title' as entered on page 1 of the application form
- be named as per the specifications given in the guidance 'Submitting your Application' click here: <https://www.gov.uk/guidance/innovate-uk-funding-general-guidance-for-applicants#the-application-process>

If you submit appendices longer than specified below, they will be truncated and the excess discarded. Appendices may be printed or photocopied in black and white, so colour should not be used as the sole method of conveying important information.

Appendix	Guidance
Appendix A (UK only) Up to 5 sides of A4	Use Appendix A to provide additional information to support Section 1 of the application form: The Business Proposition - from the UK business partner perspective, you may wish to include graphics describing the nature of the problem, market dynamics and/or exploitation plans.
Appendix B (UK only) Up to 5 sides of A4 (7 sides of A4 for academic and business applications)	<p>A project plan is mandatory for this application, and must be included in this section.</p> <p>Use Appendix B to provide further information to support Section 2 of the application form: The Project Details. You may include, for example, a Gantt chart, risk analysis table, project management structure and/or details of evidence for innovation.</p> <p>Academic and business applications may submit an additional 2 A4 sides for additional assessment information particularly for academics, such as the Pathways to Impact and Research Excellence. Please refer to separate guidance on your Project Costs for more information using the link below.</p>
Appendix C (UK only) Up to ½ side of A4 for each partner and subcontractor	<p>Use Appendix C to provide details of the specific expertise and track record of each project partner and each subcontractor to address Question 8 of the application form.</p> <p>Academic collaborators may wish to refer to their research standing.</p>
Appendix D (UK only) Up to 2 sides of A4	<p>This appendix is mandatory.</p> <p>Use Appendix D to demonstrate how the project, as a whole, complies with the Official Development Assistance (ODA) criteria: http://www.newtonfund.ac.uk/about/what-is-oda</p> <p>Please note: If your project is viewed as not compliant with the ODA criteria, it cannot be funded by Innovate UK.</p>
Appendix E (SA only) Please use template provided	<p>This appendix is mandatory.</p> <p>Appendix for SA Milestone chart /project plan and budget.</p> <p>Please note that UK applicants are required to provide the SAPL with information to assist in the completion of this appendix.</p>

3.3 UK Project plan (Appendix B)

In addition to your response to Question 6 on the application form, you are required to submit a mandatory project plan as part of Appendix B. For UK partners, a more detailed project plan will be required by Innovate UK for monitoring project progress and should be submitted as part of Appendix B.

The project plan should consist of:

- A chronological schedule of project activities presented in graphical form (e.g. Gantt chart on one page), clearly indicating the estimated time required for the completion of each main task in addition to milestones. Specific participant assignments for each task should be identified in the

Project Plan even if this information was provided elsewhere, and task assignments for subcontractors and consultants should be separately identified and described with location of work;

- A Work Breakdown Structure (WBS) detailing the planned time commitment for each task, covering the same project duration (see example in Table 1);

Table 1: Example work breakdown structure and estimated effort

Task #	Title	Task Description	Start Date	End Date	Effort Days
1000	Phase 1				
1100	Project Management				
1110	Project Management and support	Plan and monitor project activities and progress Implement and monitor subcontracts Monthly and quarterly reports			70 Participant A
1120	Meetings	Kick-off meeting Quarterly review meetings			10 each
1200	High-Level System Requirements and Design				
1210	System requirements and design	Overall system requirement specifications Overall system conceptual architecture and design System components definition			60 Participant A 20 Participant B
1300	Data Plan				
1310	Data planning, acquisition and preparation	Data planning Data acquisition Data preparation and processing			20 Participant A 20 Participant C
1320	Model data integration	Integrate data into models Test models and analyze outputs			40 Participant A 40 Participant C
1400	Model identification and definition				
1410	Application crop model implementation	Model identification, development and testing			60 Participant A 60 Participant C
1420	Integrated intelligent model implementation	Model identification, development and testing Establish and test system communication			80 Participant A 10 Participant B
1430	Product generation model implementation	Model identification, development and testing			40 Participant A 10 Participant B
1500	Hardware and Software Identification and Acquisition				
1510	Sensors	Identify and purchase sensors Install, test and maintain sensors			10 Participant A 40 Participant C
1520	Software acquisition	Software development and testing			10 Participant B
1600	Commercialization requirements				
					20 Participant A 20 Participant D
Total Effort (Person Days)					XX Participant A YY Participant B ZZ Participant C AA Participant D

3.4 South African Project Plan (Appendix E)

In addition to the collaborative application form and appendices, the SA partners are required to complete the project budget template (Appendix E), which includes a milestone based project plan with an associated budget. This is required by SAMRC to monitor project progress, ensure aligned deliverables and responsibilities of all consortium members in the project work plan. The SA partners should fill in their dedicated tabs in Appendix E.

The SAPL should also liaise with the UKPL to provide information on the following UK broad costs for evaluation by the South African review process. **The UK partners are not subjected to the funding rules of the SAMRC and should be using the standard Innovate UK cost categories when providing this information.**

Annex E - broad cost categories to be provided by UK partners (totals across partners) for the SA Review process:

Budget Item	Year 1	Year 2	Year 3
Direct Costs			
Labour Costs			
Materials Costs			
Travel and Subsistence Costs			
Other Direct Costs			
Capital Usage Costs			
Total Direct Costs			
Indirect Costs			
Total Annual Costs			
Total Project Budget			

For SA applicants: Direct and Indirect cost definitions are stipulated in section 1.5.1 as stipulated in the terms of the SAMRC funding. *Note an institutional levy is only allowed for government supported research institutions, science councils and universities as negotiated by the Strategic Health Innovation Partnership's body of the SAMRC - Private Entities will not qualify to receive such a levy.*

Full details of the applicable terms and conditions for SAMRC funding (for SA applicants only) can be found here: <http://www.samrc.ac.za/funding/SAMRCTermsConditionsFunding.pdf>

3.5 Details of financial contribution - UK

In addition to the collaborative application form and appendices, the UK partners must submit a finance form for every UK partner in your project consortium applying for grant. This will provide more detailed information on the total costs listed in your finance summary table.

Participants should use the standard Innovate UK finance forms provided as part of the application form and submit the details in GBP (£).

Funding of the project begins from the effective start date agreed in the signed grant confirmation letter / project funding agreement. Expenses incurred by the participants prior to the effective start date of the project cannot be restructured to fit into the eligible expenditure for reimbursement. Information on project finances is available in the guidance 'Your Project Costs' on our website: <https://www.gov.uk/government/publications/innovate-uk-completing-your-application-project-costs-guidance>

3.5 Details of financial contribution – South Africa

In addition to collaborative application form, all South African applicants must submit Appendix E 'SA Milestone chart /project plan and budget form'.

3.6 Additional information for UK applicants

Upon award of a successful application, a more detailed breakdown of these estimated cost categories will be requested from both the SAPL and UKPL -along with a more detailed milestone-based budget at the contracting stage.

Should your project be selected, UK partners may be contacted directly by SAMRC to request further information on each UK partner. UK applicants will not be asked to provide more information than has been requested from South African partners in Appendix E. This information is required by SAMRC as part of the internal South African contracting process.

The UK applicants may also be asked to provide a detailed breakdown of their budget per milestone, according to the template below.

Milestone	Key tasks to achieve milestone	Specific deliverables	Duration (Months)	% of budget required to achieve milestone	Funding required to achieve milestone
Milestone 1					
Milestone 2					
Milestone 3					
Milestone 4					
Milestone 5					

3.7 Exchange rate & contact information

For the purposes of this competition. The stated exchange rate UK £ to South African Rand (ZAR) is:

1 GBP = 17 ZAR

Note: this exchange rate must be used in any calculations by applicants at all times during the competition process.

Contact information

SOUTH AFRICA	UNITED KINGDOM
http://www.samrc.ac.za/funding/rfa.htm	https://www.gov.uk/government/organisations/innovate-uk
<p>SAMRC South African Medical Research Council, Grants Innovation and Product Development Unit</p> <p>Name: Babalo Ntlebi Email: babalo.ntlebi@mrc.ac.za Tel: +27 21 9380231 (Monday to Friday 9:00am-4:30pm)</p>	<p>Customer Support Services Innovate UK North Star House North Star Avenue Swindon Wiltshire SN2 1UE</p> <p>Email: support@innovateuk.gov.uk</p> <p>Customer Support Services: 0300 321 4357 (Monday-Friday, 9am-5:30pm GMT)</p>

Intellectual Property and doing Business in UK/South Africa

SA IP contacts:

National Intellectual Property Management Office (NIPMO)

Suite 15, Enterprise Building, Mark Shuttleworth Street,
The Innovation Hub, Pretoria, **Tel:** (012) 844-0222

Please reference this completion when communicating to the NIPMO representative at the SAMRC:

Dr Michelle Mulder Head of Technology Transfer Office
SAMRC Technology Transfer Office, Francie Van Zijl Drive, Parrow Valley
Western Cape South Africa, 8000
Tel: +27 72 392 8828, email: michelle.mulder@mrc.ac.za, www.samrc.ac.za

UK IP contacts:

Information on specific IP topics can be obtained from the UK IPO:

information@ipo.gov.uk

Tel: 0300 300 2000

More details on IP protection in South Africa:

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/511826/Guides_on_IP_systems_in_South_Africa.pdf