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Cooperation South Africa-The Netherlands: Water-Energy-Food Nexus, Nederlandse Organisatie voor Wetenschappelijk Onderzoek

Taking the Next Step
Call for proposals
WOTRO Science for Global Development

2019

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1 Introduction

1.1 Background

There is a long history of scientific collaboration between South Africa and the Netherlands. The Dutch Research Council (NWO), through the Merian Fund¹, and the National Research Foundation (NRF) of South Africa aim to further stimulate long term research collaboration between their two countries by funding joint research, to strengthen the international position and global impact of their research. Funding is provided for interdisciplinary and transdisciplinary consortia of South African and Dutch research groups and stakeholder partners, for high quality research that has the potential for societal and scientific impact.

NWO and NRF have agreed on strategic knowledge and innovation agendas. A Call for Proposals on a jointly agreed theme based on this agenda is published annually. Funded research should be in alignment with national research agendas, as well as international initiatives such as the UN Sustainable Development Goals, and build bridges between different actors in the knowledge chain, fundamental and applied research, and scientific disciplines.

1.2 Available budget

The total combined budget for this Call is € 2,047,000. With the available total budget, NWO and NRF

The Merian Fund is part of NWO, and was founded to stimulate long-term collaboration with important emerging science nations and strengthen the international position and global impact of research by Dutch researchers. The Merian Fund focuses on broad scientific themes of societal importance that require an impact-oriented approach and programmes in the Merian Fund are aligned with the National research Agenda (NWA) of the Netherlands.



aim to fund two projects with a duration of 3 years. Projects can apply for a maximum of \in 700 000 at NWO and a maximum of \in 323 500 (i.e. R5.220 mil) from the NRF (not more than \in 107 833, i.e. R1.740 mil per annum).

The NWO Grant Rules 2.017 are applicable to the part of the project's budget covered by the grant from NWO. The part of the budget covered by the grant from NRF must follow the norms and regulations of the NRF. Please see section 3 for further details.

1.3 Validity of the call for proposals

This Call for proposals is valid until the closing date, **September 26, 2019, 14:00 CEST**. The Dutch Principal Investigator must submit the application to NWO before 14:00 CEST. The South African Principal Investigator must submit the application to NRF before 24:00 SAST.

Applications must be preceded by a Letter of Intent explaining the outlines of the planned project proposal, using the format provided in Annex 6.1 of this Call. The Principal Investigators may not change after submission of the Letter of Intent. This Letter of Intent (jointly developed by the partnering Principal Investigators) must be received by NWO at least one month before the deadline of the Call, being **August 29, 2019**, 14:00 CEST. Letters of Intent must be submitted by the Dutch Principal Investigator in close cooperation with the South African Principal Investigator to: southafricamerian@nwo.nl. Proposals that are not preceded by a Letter of Intent will be excluded from the assessment procedure by both NWO and the NRF.

2 Aim

Many societal challenges are global in nature, and require flexibility and creativity to find solutions. The collaborative research financed by NWO and NRF in this Call is intended to work towards scientific knowledge and innovative solutions for high scientific and societal impact. At the same time, NRF and NWO aim to enhance and strengthen sustainable research collaboration between their two countries, by inviting consortia in which researchers from knowledge institutions from both countries will work with societal partners from public, semi-public and private organisations, in order to increase the societal relevance of their research.

This Call therefore, serves as a national and regional research platform designed to provide the knowledge needed to support transformations towards sustainability. The Call seeks to:

- Build and connect knowledge to increase the (societal) impact of research;
- Explore new development pathways; and
- Find new ways to accelerate transitions towards sustainable development.

Through this Call South Africa and the Netherlands aim to bring together partners in society to co-develop the knowledge needed to support decision-makers and contribute to societal change at all scales and in diverse contexts, by focusing on the Water-Energy-Food Nexus as the main research area. This Nexus is a global, regional and national challenge that cannot be solved by one country alone. It requires multi-country partnerships, multi- and interdisciplinary research.

For South Africa it is imperative that the WEF nexus approach is closely aligned to the National Development Plan (NDP). For the Netherlands, alignment to the National Research Agenda (NWA) is important, including in the way the project is executed, such as through greater involvement of the entire knowledge chain. Proposals should furthermore link to the SDGs, particularly to SDGs 2 (zero hunger), 6 (clean water and sanitation) and 7 (affordable and clean energy).

2.1 Thematic focus: The Water-Energy-Food Nexus

The Water-Energy-Food Nexus is gaining recognition internationally and nationally as a cross-sectoral approach to resource management and sustainable development. South Africa has adopted the WEF Nexus approach as an important framework to achieve national goals, however the implementation of the WEF nexus could be strengthened. Therefore this Call focuses on the integration of application-oriented solutions in relevant systems across the WEF nexus, to help develop practical innovations and support decisions and policymakers towards sustainable planning and practices, strategies and policies. These application-oriented solutions are aimed at balancing trade-offs and amplifying synergies between the food, water, and energy sectors while simultaneously preserving the environment. Specific attention will be given to the following account policy priorities: poverty alleviation, tackling unemployment and improving livelihoods.

Therefore, WEF nexus research should:

1) Address challenges related to the WEF Nexus in the context of a specific region, province or local



- municipality in South Africa. The research proposal must specify why that specific region, province or local municipality is chosen and what the research questions are in relation to the WEF Nexus. The chosen regional, provincial or local context should be suitable to work as showcase and provide transferable knowledge to other settings.
- 2) Build upon on analytical tools to assess resource performance and create a WEF nexus database or information system for South Africa. Alternatively new analytical tools may be developed, under the condition that a lacuna is addressed. There are multiple models, tools and indices available to evaluate and quantify the WEF nexus; most of these tools may, however, require contextualisation and modifications to be applicable to South Africa. Data availability and quality will be a factor in the reliability of the models, emphasising the necessity of a central database where data can be compared and justified. The issue of temporal and spatial scale differences between data also needs further attention and may be resolved by integrating various models and tools. South Africa is well positioned, as there are large data sets that already exist.
- 3) Translate research to inform policies in developing options for integrated sustainable resource management, planning and governance. In this light, the research takes into account institutional arrangements, governance issues and legal aspects. Research will necessitate not just quantitative assessments, but encompass participatory research involving relevant stakeholders and the collaboration of different governmental departments, specialists and policymakers, aimed at demonstrating the applicability of the WEF nexus at the regional, provincial or local level. This Call emphasises the need to generate cases that demonstrate how the WEF nexus could assist in achieving SDGs 2, 6 and 7. This is in line with the South African focus on the alleviation of poverty, addressing the high unemployment rate, improve livelihoods and combatting inequality and strengthening sustainable access to water, food, energy and the related relevant technologies, whereby attention will be given to integrate a gender approach in the research.

2.2 Specific project requirements

2.2.1 Integrated research approach and Co-creation

The challenges addressed in this Call are interrelated and multi-scalar, and to reach impact require a holistic approach that spans the entire research and innovation chain. The consortia should be knowledge-chain wide, meaning they should crosscut scientific disciplinary boundaries (interdisciplinarity) and integrate scientific and practitioners' knowledge in joint research (transdisciplinarity). The proposed research itself should be characterised by integrated perspectives. It should evolve in a process of co-creation with different partners: researchers from both countries and societal partners should be actively involved throughout the entire project, in (advising on) defining and conducting the research as well as in communicating the progress and results, in order to jointly produce a mutually valued outcome. Added value may be achieved by integrating and synthesising various sources of knowledge to create new knowledge and by creating sustainability through the development of long-term knowledge relations.

Proposals should be based on a thorough review of existing knowledge and should preferably be complementary to existing research initiatives and reinforce these were possible. Project teams are encouraged to use a combination of quantitative and qualitative and quasi-experimental research methods, including operational research, and should include research-into-use approaches.

Proposals should furthermore be characterised by equal partnership and sustainable collaboration between the South African and Dutch partners. This includes inter-institutional cooperation, a balanced contribution to the proposed research, and frequent exchange between the partners, including a focus on capacity building.

Projects are also expected to collaborate with the other project(s) awarded in this Call, so as to enhance the impact of the Call aim as a whole. As a part of this, projects will be expected to attend joint kick-off and midterm workshops, as well as a final Call conference. Projects should budget for this accordingly.

2.2.2 Theory of Change & Impact Pathway

The research conducted in this Call for Proposals should have relevance and potential for impact beyond the academic world, such as in societal, technical, economical or cultural realms. This is why, in addition to having a societal or industry partner within the consortium, consortia should consider how relevant stakeholders can be involved in, or benefit from, the design and realisation of the proposed research project.

To further enhance the potential for impact of the proposed research, the application should state how approaches for achieving impact are integrated in the research design and conducted by the consor-



tium in engagement with end users, such as practitioners, policymakers, and industry.

An integrated approach to impact

Developing a vision on desired change in collaboration between partners and stakeholders is pivotal for developing realistic and feasible strategies to enhance the potential for impact. To this end an integrated approach is required, which consists of the following elements:

- Co-creation
- Theory of Change and Impact Pathway
- Impact Strategy

Co-creation: A form of cooperation in research where different parties (researchers and stakeholders) in the knowledge process (demand and supply) interact and engage in joint learning to define problems, formulate possible solutions, design the research, conduct the research, assess the results and to translate these into new practices and products.

A **Theory of Change** describes how the research process can contribute to impact, taking into account the context, actors involved and describing the sequence of logically-linked cause-effect relations. Developing a Theory of Change in joint effort with research partners as well as stakeholders allows for making explicit which (and whose) problem is being tackled, and how the desired change is perceived to happen through research efforts. Projections on expected change will be based on a myriad of assumptions; documenting these assumptions allows for reflection on whether and how expected pathways to impact remain adequate or need adjustment.

The **Impact Pathway**, which is part of the Theory of Change, is the visualisation of the change process following from research execution as described in the Theory of Change. It makes explicit how the research activities will lead to results (output) and how these will contribute to desired changes in behavior of partners and stakeholders that are considered essential to achieving the desired impact.

An **Impact Strategy** is the plan of the consortium that spells out how the activities contribute to outcomes. Outputs do not automatically lead to outcomes, thus strategies are needed of the research consortium to plan and monitor how their efforts will enhance the potential for outcomes. This strategy should spell out clearly:

How to translate this approach in the proposal?

Co-creation: Specify how the different skills and expertise are complementary and how this is integrated in approaches. Co-creation within the consortium and with stakeholders is central to the development of the research proposal through to the execution of the research. Describe how co-creation within the consortium and with stakeholders is organised and monitored.

The Theory of Change describes how the research process is expected to contribute to the Water-Energy-Food Nexus. Describe clearly the contribution of the proposed research from problem definition and the identification of knowledge gaps, through to the research design and how this is expected to contribute to change, including accompanying assumptions. The Theory of Change takes into account the context and the key groups of actors required to achieve the desired change. The Theory of Change is the vision narrative that is the background to the Research Impact Pathway.

Explicate in the Impact Pathway the expected change process that the proposed project contributes to through the realisation of output and outcomes, and the desired contribution to impact (see Box 1). Describe the sequence of expected logical cause-effect relations, including underlying assumptions. By formulating and revising the Impact Pathways in a collaborative effort between research partners, and stakeholders, it serves both as thought process (joint reflection) as well as method (tool) for formulating activities and strategies and monitoring and progress.

To further increase the potential for impact of the proposed research, the application should state how productive interactions around knowledge from the consortium to end users, such as government ministries, societal stakeholders and companies, will be facilitated. To this end, a clear impact strategy (including stakeholder engagement, capacity development, and communication, also with the aim to influence the enabling environment) needs to be provided. This impact strategy should contain descriptions of the actual knowledge transfer activities undertaken to encourage innovation and boost impact from inception through to the end stages of the proposed research.

Indicators, at output and outcome levels, facilitate monitoring progress and accordingly adjusting the research approach, where the assumptions proved insufficient or incorrect. Indicators should be formulated in SMART ways and be ambitious, yet realistic.



A Theory of Change is not fixed, but rather reflected on continuously throughout the research process. For this reason, it is also used as part of the monitoring, evaluation and learning trajectory

Box 1: Output, outcome and impact

Research outputs relate to the direct and immediate results obtained by a research project or programme;

Research outcomes relate to the changes in behaviour, relationships, actions, or activities of stakeholders as a result of sharing and uptake of research;

Research impact is defined as changes in economic, environmental and social conditions a project or programme is aiming at.

Change is a complex process that depends on a variety of actors and factors of which research is only one. Where research outputs fall under the direct sphere of control of a research project or programme, outcomes belong to their sphere of influence, and impact to their sphere of interest.

3 Guidelines for applicants

3.1 Who can apply

Eligible consortia are composed of researchers based in the Netherlands and in South Africa, with active involvement in the project of a senior Principal Investigator (PI) on both the Dutch and the South African side. The consortium must also include a partner from the public, semi-public or private practitioner organisation (for-profit or not-for-profit). From the South African side a historically disadvantaged university must be included in the partnership (see Annex 6.6). The consortium may also include other co-applicants, as long as they are eligible according to the criteria in 3.1.2.

Together, the consortium members will 1) formulate relevant research questions and approaches; 2) formulate and submit the proposal through the principal investigators; 3) conduct the project activities; 4) coordinate knowledge sharing and support the application, dissemination and communication of the project results to a broader group of possible knowledge users that are not a member of the consortium; and 5) take responsibility for the adequate and timely reporting conditions. Each principal investigator and consortium can only submit one proposal.

This Call aims at knowledge chain-wide collaboration, to enhance demand articulation, ownership, and the effective uptake of results. For this reason, all consortium partners, as well as relevant stakeholders, are expected to be engaged in all phases of the project execution, from its inception to sharing the (emerging) results. Evidence of such active engagement will be an important element in the assessment of project proposals and may be demonstrated through references to involvement in project preparation, active involvement as a project partner and links between the proposed research project and ongoing projects of NGOs, private enterprises, and/or policy implementation.

A Consortium Agreement to regulate consortium governance, task division, resource management and ownership of results between the collaborating consortium organisations is obligatory (see section 3.5 for details.

3.1.1 Principal Investigators

A proposal should have two Principal Investigators: one based in the Netherlands or at a university established in the Kingdom of the Netherlands, and one based in South Africa. The two Principal Investigators will serve as the recipients of the grants from their respective countries. They will submit the proposal to both organisations. The Dutch Principal Investigator will serve as contact point for NWO, and the South African Principal Investigator will serve as contact point for NRF. The Principal Investigators' organisations will take responsibility for the project secretariat, the day-to-day management and all financial affairs of the research project.

Netherlands-based principal investigator

For scientists based in the Netherlands or at a university established in the Kingdom of the Netherlands, the NWO eligibility criteria apply. The Dutch Principal Investigator should be affiliated to one of the following:

- Universities established in the Kingdom of the Netherlands;
- University medical centres;
- NWO and KNAW institutes;
- TO2 institutes;
- the Netherlands Cancer Institute;
- the Max Planck Institute for Psycholinguistics in Nijmegen;
- researchers from the DUBBLE Beamline at the ESRF in Grenoble;



- NCB Naturalis;
- Advanced Research Centre for NanoLithography (ARCNL);
- Prinses Máxima Center for pediatric oncology;

The Netherlands-based Principal Investigator should furthermore:

- have an employment contract for at least the duration of the application procedure and the duration of the research the grant is applied for;
- have at least a PhD or an equivalent qualification;
 researchers with a 0 hour contract at one of the institutions above cannot apply; an exemption can be made for Principal Investigators on a 'tenure track' contract at one of the institutions above.

South African-based principal investigator

For South African applicants, the NRF eligibility criteria apply, as follows:

- Only working researchers/ scientists residing in South Africa and affiliated with a recognised South
 African public higher education or research institution such as a university, university of technology or science council are eligible to apply.
- Private higher education institutions are not eligible to apply under this programme.
- The SMEs, private companies/ industries, and NGOs cannot serve as a Principal Investigator but can form part of the research consortium.
- It is "obligatory" for South African principal investigator based at historically advantaged institutions to include, as part of the consortium, a research partner from any of the historically disadvantaged institutions. Proposals submitted by an applicant based at a historically advantaged institution without a research partner from a historically disadvantaged institution will be ineligible (and will not be submitted for review). The research partner from the historically disadvantaged institution in this case can serve as a co- applicant in the proposal (see section 3.1.2 below on "co-applicants").
- Applicants based at historically disadvantaged institutions are allowed to submit proposals without the involvement of researchers based at historically advantaged institutions if they so wish.

3.1.2 Co-applicants

A co-applicant is a participant in the consortium and receives funding through the principal investigator. A co-applicant is:

 a researcher from one of the institutions listed in 3.1.1., who has an employment contract for at least the duration of the application procedure and the duration of the research the grant is applied for;
 AND

has at least a PhD or an equivalent qualification.

Researchers with a 0 hour contract at one of the institutions above cannot be a co-applicant. An exemption can be made for researchers on a 'tenure track' contract at one of the institutions above.

 an experienced researcher (a professor, assistant professor, or a researcher with a similar appointment) with an appointment at an university of applied sciences funded by the Dutch Ministry of Education for the duration of the application process and the project (funded in accordance with Article 1.8 of the law on higher education and scientific research).

3.1.3 Public and/or Private practitioner collaboration partners

Consortia should contain a public and/or private practitioner collaboration partner. Public and/or private practitioner collaboration partners are partners from the public and/or semi- public sectors and/or industry. They are closely involved with the research and impact strategy. Please note that personnel of these organisations are excluded from payment of salaries and research costs from the NWO or NRF grant, unless they are hired through the module 2 – work by third parties (see Annex 6.2). Costs for for-profit partners cannot be charged to the project budget.

All organisations participating in a consortium must be registered as a legal persona.

3.2 What can be applied for

The Principal Investigators and consortia can apply for funds for a project with a maximum duration of 3-years. A maximum of € 700.000 can be requested from NWO, and a maximum of € 323.500 (R5.220 mil) is available from the NRF. This Call invites full proposals to be submitted, preceded by a Letter of Intent. All consortium members have to be involved in the formulation of the research questions, in



the development of the proposal and in the execution of the research project. Each Principal Investigator and consortium can apply for one project only.

Reimbursable costs

Different costs can be reimbursed from the NRF and NWO grants. The application form allows you to specify which organisation you would like to cover a certain cost. You should complete two budgets, one specifying the costs to be covered by the NWO grant and one specifying the costs to be covered by the NRF grant.

Reimbursable costs NRF budget:

The NRF Online Submission System has a section for budget requirement. South African applicants must ensure that they complete this section of the application form in line with Annex 6. 3 (i.e. NRF budget allocation per allowable research activities.

Reimbursable costs NWO budget:

The budget is built up using the NWO-wide standardised building blocks, the so-Called modules. These are described in Annex 6.2. In the proposal budget, applicants choose which combination of modules are needed to answer the research question and how often each module will be deployed. Each module can be applied multiple times. All requested reimbursable costs must fit within the module specifications as described in Annex 6.2. The following modules are available for an application within this round:

- 1. Personnel
- Salary and/or research leave costs can be requested within the limits of the module specification in Annex 6.2. Please note that, should you wish to use this module to cover the salary, living costs, or research leave of someone appointed in South Africa, local tariffs apply, and may not be more than the equivalent in the Dutch agreement "Funding for Scientific Research"². As this granting is for a three year research duration, a guarantee from the university must be provided regarding funding for the fourth year if a PhD student is appointed.
- 2. Material Credit
 - Only costs directly related to the project are eligible for reimbursement in this module. These costs should be specified and substantiated in the proposal. International travel related to international cooperation, or costs related to international workshops, may also be placed under module 5 (internationalisation). Please note that if the Netherlands-based Principal Investigator is not from a university or KNAW institute, the project will be required to submit an audit report at the end of its duration. Please budget for this accordingly (€ 5.000).
- 4. Impact
 - Funding from this module can be requested for costs related to the proposal's impact strategy, such as workshops, policy briefs, and other activities to share the project's findings during and at the end of its duration. Please take into consideration the requirements regarding impact and an impact strategy as specified in section 2.2 of this Call for Proposals. Proposals should furthermore request funding for a kick-off, midterm, and final workshop; and funding to attend the kick-off, midterm, and final workshop with the other project funded in this Call (between \in 20,000 and \in 24,000.
- 5. Internationalisation
 - Funding in this module can be requested to further facilitate international exchange and travel. NWO has provided a budget form (Excel) that should be uploaded with your application. While filling in the budget, you are expected to justify how the proposed cost will support the project. This justification may be no more than 1 A4 page, and should be included in section 4b of the application form. A specification of the costs that are covered per module can be found in Annex 6.2. The modules can be applied for as many times as necessary, up to the total budget maximum. All costs must be conform the module specifications.

3.3 When can applications be submitted

Letters of Intent must be submitted by **August 29, 2019, 14:00** CEST. The Letter of Intent must be submitted by the Dutch Principal Investigator to: southafrica-merian@nwo.nl.

The deadline for the submission of proposals is **September 26, 2019, 14:00 hours CEST** for Dutch Principal Investigators. South African Principal Investigators need to submit their proposals **September 26, 24:00 SAST**. Proposals must be submitted on time to both NWO (via ISAAC, www.isaac.n-wo.nl) and NRF through the NRF Online Submission System (at https://nrfsubmission.nrf.ac.za/.

 $^{^2 \}quad \text{https://www.nwo.nl/en/funding/funding+process+explained/salary+tables}$



When you submit your application to ISAAC you will also need to enter additional details online, such as the institutions or organisations of both Principal Investigators and your co-applicants. You should therefore start submitting your application at least five working days before the deadline of this Call for proposals.

Applications submitted after the deadline to either NWO or NRF will not be taken into consideration.

3.4 Preparing an application

Letter of Intent

A Letter of Intent should be sent to southafrica-merian@nwo.nlby the Netherlands-based Principal Investigator, following the format in Annex 6.1. The Letter of Intent should be signed by both Principal Investigators, and be sent to NWO by the indicated deadline. The Letter of Intent should be developed in partnership by the principal investigators and other consortium members.

The Letter of Intent itself will not be subject to an eligibility procedure, other than the requirement of having been submitted on time by the correct person. However, NWO and NRF may give feedback if they notice that there are deficiencies that can become concerns during the eligibility check of the full proposal, such as regarding the composition of the consortium or the degree of fit with the Call. NWO and NRF may furthermore use the project description in the Letter of Intent to look for and invite external referees to assess the full proposal.

Webinar

A webinar on the Theory of Change and Impact Pathway approach will be held on 13th August 2019. In this webinar, you will be given more information regarding this approach, as well as have the opportunity to ask questions. It is not mandatory. More information, including the link to join the webinar, will be made available on the Cooperation South Africa-The Netherlands programme page.

Proposal

For NWO:

- Download the application form and budget Excel form from the electronic application system ISAAC or from NWO's website (on the grant page for this programme).
- Complete the application form and budget Excel form, using the guidelines in the application form and Call
- Save the application form as a pdf file and upload it in ISAAC.
- Save the budget form as Excel and upload it as separate document in ISAAC.

For NRF:

Applications must be submitted through an online application process to the NRF on the NRF Online Submission System at https://nrfsubmission.nrf.ac.za/. Please make use of the "General Application Guide 2020" for assistance on the steps to follow when applying for international research grants. The guide can be accessed through the following link: https://www.nrf.ac.za/sites/default/files/General%20Application%20Guide%202020%20Ver%201.3%2030%20APRIL%20%202019.pdf.

Full proposals should include:

- The application form for full applications
- A completed budget
- A letter of commitment from the organisations of the Principal Investigators, co- applicants and public or private collaboration partners, in which the institution confirms that they agree to the conditions required for the execution of the project. The letter must be signed by the Dean of the faculty or director of the organisation and be printed on the letterhead of the institution or organisation. See the format in Annex 6.4
- A draft consortium agreement
- CVs of both Principal Investigators and all co-applicants and public/private collaboration partners;
- A list of literature references;
- In case of co-financing: a letter of guarantee from the co-financing institution confirming the numeric amount that will be provided as co-financing. In case the institution of a consortium member provides co-financing, this confirmation can be included in the letter of commitment. Letters of guarantee are unconditional and do not contain any opt-out clauses.

It is not permitted to include other documents than those requested above. Applicants will be asked to remove any additional documents.



3.5 Conditions on granting

For NWO:

The NWO Grant Rules 2017 and the Agreement on the Payment of Costs for Scientific Research apply to all grants provided by NWO.

The project should start within three months after the date of the grant letter. At least one researcher must be appointed to the project at the time of its start. If the project has not started within three months, the WOTRO Steering Committee can decide to revoke the granting decision, in consultation with NRF.

The project can start if the following documents have been approved by NWO:

- A project notification form with information of project staff;
- A data management plan;
- A consortium agreement, signed by all consortium organisations3;
- (if relevant) approval of an ethics committee;
- (if relevant) receipt by NWO of the first tranche of in-cash co-financing.

For NRF:

The NRF Conditions will be detailed in the "Conditions of Grant" Contract to be signed between theresearchers and the NRF during the award process. The project should start within three months after the date of the grant letter.

Publications:

When publishing the results of the subsidised research, the support by NWO and NRF should be mentioned.

Reporting to NWO and NRF

Midterm report

About halfway the project's duration, the project must submit a report to inform NWO on the overall project progress, experiences and output. The Dutch Principal Investigator will receive instructions and a format for this report in advance. The South African Principal Investigator is expected to submit annual progress reports through the NRF Online Submission System. On an annual basis the NRF publishes a national Call for "Annual Progress Reports" due for each financial year. South African Principal Investigators are urged to look out for such notifications/calls.

The projects will also be evaluated at about the mid-term of the projects' running time by self-assessment. This includes a workshop of the project team organised by the consortium and a discussion of the results with stakeholders from outside the project team. Consortia should include this workshop in their budget. The mid-term report will be based on the conclusions of the workshop, including a reflection on and (if applicable) revision of the Impact Pathway and impact strategy, the underlying assumptions and the indicators. The International Advisory Committee, composed by NRF and NWO, will evaluate the progress of the projects based on mid-term reports submitted by the consortia. Interviews or field visits may be organized to evaluate the progress and impact of the projects. The IAC will give recommendations based on their evaluation.

The mid-term report of all the projects of a Call need to be submitted before the joint mid-term workshop and will be used as input for organising the mid-term workshop.

Publications

NWO and NRF expect that during the project's runtime, as well as in the years following the project, all forms of output related to the project be registered in ISAAC.

Final accountability to NWO and NRF

A substantive final report should be submitted within three months after the end of the project's runtime, detailing the research done and the achieved results, as well as a reflection on the project's

 $^{^{3} \}quad \text{A format can be found here: https://www.nwo.nl/en/documents/wotro/wotro---format-consortium-agreement}$



Impact Pathway and its indicators. As part of this, projects will be asked to again complete a self-assessment, and hold a final workshop and a discussion with stakeholders from outside the project team. The final substantive report will again be evaluated by the joint review committee, constituted by NRF and NWO. The final workshop should again be taken into account in the consortium's budget.

Simultaneously, the Dutch principal investigator and the controller/financial manager of the principal investigator's institution should submit a signed financial end report, organised according to the budget lines of the approved budget requested from NWO. The report should detail, among others, the effective duration (period) and size (fte) of the personnel appointed to the project using the module Personnel, and, if applicable, how eventual replacements were arranged. The realised in cash and in-kind co-financing should also be accounted for. If the Dutch principal investigator is not based at a Dutch university, an external audit report must also be submitted. NWO reserves the right to conduct an external financial audit. NWO reserves the right to externally evaluate projects financed under this Call. The project ends with the issuing of the grant settlement decision. This decision is taken after approval of the final document(s) by NWO.

The South African Principal Investigator will again be expected to submit an annual report. On an annual basis the NRF publishes a national Call for "Annual Progress Reports" due for each financial year. South African Principal Investigators are urged to look out for such notifications/calls. The South African Principal Investigator is required to ensure that they submit their final reports within three months after the end of the project.

Programmatic coherence

The projects awarded under this Call should contribute to Water-Energy-Food Nexus. To this end, Principal Investigators and researchers are expected to contribute to knowledge exchange and knowledge utilisation at a programme level, and to attend the meetings organised for that purpose. This includes the kick-off, mid-term and concluding workshops with the other project awarded under this Call. This is in addition to the activities organised by the individual projects for this purpose. Consortia should budget for their attendance at these meetings in their application (between \leqslant 20,000 and \leqslant 24,000).

Co- financing

- Co-financing by private and/or public parties is not a requirement for this Call, but if available, can take the form of in-kind or cash co-financing.
- It is possible for contributions to be partially in-kind and partially cash. The amounts of cofinancing specified in the budget should correspond to the amount of co-financing specified in the guarantee letter or letter of commitment.
- The private and/or public parties that are part of the consortium should be involved in the research for the duration of the project.
- Co-financing provided by a South African institution or organisation should be included in the South African budget, and should be accounted for to NRF. Co-financing provided by other institutions or organisations should be included in the NWO budget, and accounted for to NWO.
- After a research proposal has been awarded funding, NWO will invoice the private or public party that has pledged an in-cash contribution if that in-cash contribution exceeds € 5.000. After the contribution has been received, the money will be awarded to the project. Cash contributions of less than € 5.000 are marked by NWO-WOTRO as in kind contributions. It is the responsibility of the Netherlands-based Principal Investigator to invoice these cash co-funding organisations

Consortium agreement

For research partnerships to be effective, they have to be fair. A consortium agreement should be signed by all consortium partners prior to the start of the awarded project, detailing agreements regarding rights (such as copyright, publications, intellectual property etc. of products or other developments in the project), knowledge utilisation, as well as affairs such as payments, progress- and final reports, and confidentiality. The agreement furthermore details agreements on governance of the consortium (to the extent that it gives sufficient guarantee for effective collaboration), finances, and if applicable, basic knowledge to be contributed, liability, disputes, and information sharing within the consortium. The agreement has to be drafted in a spirit of equity. The initiative for the concluding of these agreements lies with the Principal Investigators⁴.

The agreement will be tested for consistency with the NWO Grant Rules 2017. For Intellectual Property

⁴ For a format, see https://www.nwo.nl/en/documents/wotro/wotro---format-consortium-agreement



(IP) rights, the provisions as specified in Chapter 4 of the NWO Grant Rules 2.017 are applicable, according to which the IP-rights to the results belong to the research institution, whose employee generated the results in question (ownership follows inventor-ship). For the IP rights of the results of possible co-financing institutions, the percentages shown are applicable, unless an appropriate reflection justifies the deviation from this. South African Principal Investigators and co- applicants should furthermore ensure that agreements regarding this are aligned and conform to their university policies.

Open Access

All scientific publications resulting from research that is funded by grants derived from this call for proposals are to be immediately (at the time of publication) freely accessible worldwide (Open Access). There are several ways for researchers to publish Open Access. A detailed explanation regarding Open Access can be found on www.nwo.nl/openscience-en.

Data management

Responsible data management is part of good research. NWO and NRF want research data that emerge from publicly funded research to become freely and sustainably available, as much as possible, for reuse by other researchers. Furthermore NWO and NRF wants to raise awareness among researchers about the importance of responsible data management.

NWO

Proposals should therefore satisfy the data management protocol of NWO. This protocol consists of two steps:

- Data management section
 The data management section is part of the research proposal. Researchers should answer four questions about data management within their intended research project. Therefore before the
 - research starts the researcher will be asked to think about how the data collected must be ordered and categorised so that it can be made freely available. Measures will often need to be taken during the production and analysis of the data to make their later storage and dissemination possible. Researchers can state which research data they consider to be relevant for storage and reuse.
- 2. Data management plan

After a proposal has been awarded funding the researcher should elaborate the data management section into a data management plan. The data management plan is a concrete elaboration of the data management section. In the plan the researcher describes whether use will be made of existing data or a new data collection and how the data collection will be made FAIR: Findable, Accessible, Interoperable, Reusable. The plan should be submitted to NWO via ISAAC within a maximum of 3 months after the proposal has been awarded funding. NWO will approve the plan as quickly as possible. Approval of the data management plan by NWO is a condition for disbursement of the funding. The plan can be adjusted during the research.

Further information about the data management protocol of NWO can be found at www.nwo.nl/datamanagement.

NRF

South African principal investigators and co-applicants should ensure the above-mentioned data management plan also conforms to the data management standards and requirements of their university.

Nagoya Protocol

The Nagoya Protocol became effective on 12 October 2014 and ensures an honest and reasonable distribution of benefits emerging from the use of genetic resources (Access and Benefit Sharing; ABS). Researchers who make use of genetic sources from the Netherlands or abroad for their research should familiarise themselves with the Nagoya Protocol (www.absfocalpoint.nl). NWO and NRF assume that researchers will take all necessary actions with respect to the Nagoya Protocol.

Ethical aspects

Any research proposal that raises ethical issues must be carefully considered in advance. The applicants need to assess what ethical challenges will be met in the proposed research, consider how these will be addressed, and how ethical clearance will be obtained. In the Netherlands, certain research projects require a statement of approval from a recognised (medical) ethics review commit-



tee or an animal experiments committee. In addition, some research proposals require a licence under the Population Screening Act (WBO). Similar laws and regulations in South Africa must be adhered to if required and applicable. Applicants must subscribe to and comply with the prevailing codes.

Applicants themselves are responsible for determining whether their research proposal raises possible ethical issues. If so, they are also responsible for obtaining any necessary statement of approval from the appropriate ethics review committees and/or license under the Population Screening Act or similar organisations. A research project can only start when NWO has received a copy of the necessary approving ethical statement and/or Population Screening Act license (if applicable). For complex questions related to ethical issues and in case applicants would question the need for ethical clearance, NWO reserves the right to consult an external adviser. If after consulting the applicant, NWO is of the opinion that an ethical assessment is needed for the application, then the applicant is obliged to take the necessary measures for such an assessment. If the applicant fails to obtain the necessary statement of approval from an ethics review committee then the grant shall be immediately withdrawn.

Once the project has started the research must be conducted in an ethically responsible way. If the applicant fails to do so, NWO and NRF shall reserve the right to withdraw the grant immediately.

3.6 Submitting an application

Applications should be submitted to both NWO and NRF, by the Netherlands-based and South Africa Principal Investigators respectively. Applications not submitted to both organisations will not be taken into consideration.

Applications submitted after the deadline, or that have not been submitted to both application systems before the deadline, will not be included in the assessment procedure.

Submission to NWO:

The Principal Investigator based in the Netherlands or at a university established in the Kingdom of the Netherlands must submit his/her application via his/her own ISAAC account (www.isaac.nwo.nl). Applications not submitted via ISAAC will not be admitted to the assessment procedure.

If the Principal Investigator does not have an ISAAC account yet, then this should be created at least five working days before the application is submitted to ensure that any registration problems can be resolved on time. If the Principal Investigator already has an NWO-account, then he/she does not need to create a new account to submit an application.

Please note that you will be asked to submit additional information when submitting your application in ISAAC, such as the organisations of your consortium members. For this reason, we strongly advise that you start submitting your application at least five working days before the deadline. For technical questions please contact the ISAAC helpdesk, see Section 5.1.2.

Submission to NRF

Applications must be submitted through an online application process to the NRF on the NRF Online Submission System at https://nrfsubmission.nrf.ac.za/.Please make use of the "General Application Guide 2020" for assistance on the steps to follow when applying for international research grants. The guide can be accessed through the following link:

https://www.nrf.ac.za/sites/default/files/ General%20Application%20Guide%202020%20Ver%201.3%2030%20APRIL%20%202019.pdf.

4 Assessment procedure

4.1 Procedure

Code of Conduct on Conflicts of Interest

Up to and including 30 June 2019, the NWO Code of Conduct on Conflicts of Interest applies to all persons and NWO employees involved in the handling, assessment and/or decision-taking process. On 1 July 2019, this Code of Conduct will be replaced by the new Personal Interest Code. From 1 July 2019, the assessment and/or decision-taking process for this funding round will therefore be carried out according to the Personal Interest Code. More information concerning the Personal Interest Code can be found on the NWO website. See also: https://www.nwo.nl/en/common/subsidies/funding-



process-explained/code-for-dealing-with-personal-interests.

The first step in the assessment procedure is the check if the application (both submitted to NWO and NRF) meets the eligibility criteria, specified in section 4.2.1. All applicants and their institutions must fulfil national eligibility rules for research proposals as set by the relevant organisation (see section 3.1, who can apply).

NWO and NRF will jointly compose an International Advisory Committee (IAC), with international experts. All applications are assessed in competition by the IAC, according to the criteria specified in paragraph 4.2.2. The IAC will formulate a funding advice. The NWO-WOTRO Steering Committee and the NRF RISA Executives will take a provisional decision based on the advice of the IAC regarding the applications to be awarded. The decision is final when both organisations have reached the same decision.

Below is a further description of the assessment procedure.

Eligibility

After the deadline, the administrative eligibility of the applications is assessed by NWO and NRF, based on the eligibility criteria specified in paragraph 4.2.1.

If correction of an application is possible and necessary, the main applicant will be given the opportunity to adjust his or her application. If the application is not corrected within the given time frame, NWO and NRF will not include the application in the assessment process. Corrected applications will, after approval of eligibility by both NWO and NRF, be included in the assessment procedure.

The remainder of the assessment procedure will subsequently be conducted through the online system of NWO.

Substantive assessme

All eligible applications will be sent to independent, (inter)national reviewers, who will assess the application based on the criteria specified in 4.2.2 Each application will be assessed by a minimum of three reviewers. The reports by the external reviewers will be made available to the Netherlands-based Principal Investigator, after which the consortium will have five working days to write a response to the reviewers' reports. The Netherlands-based Principal Investigator holds the responsibility to share the reviewers' report with the South Africa-based Principle Investigator. The response should be submitted by the Dutch Principal Investigator, via his or her ISAAC account.

Assessment and Grant Advice

The IAC will make a final assessment of the application, based on the application, the reviewer reports, and the response, according to the criteria in section 4.2.2 The IAC will subsequently rank all applications. The IAC will subsequently present a substantiated advice to the WOTRO Steering Committee and NRF RISA Executives regarding which applications are to be awarded.

Decision

The NRF RISA Executives and the NWO-WOTRO Steering Committee, on behalf of NWO, will check the assessment procedure has been carried out in accordance with the Call for Proposals, and will provisionally decide on the projects to be awarded, based on the advice of the IAC. The decision becomes definitive when the NWO-WOTRO Steering Committee and the NRF RISA Executives have come to the same provisional decision.

Qualification

Based on the IAC's final score, NWO and NRF will award a qualification to all full proposals, and will make this known to both the Netherlands and the South African based Principal Investigators with the decision about whether or not the application has been awarded funding.

Only applications that receive the qualification "excellent" or "very good" will be eligible for funding. For more information about the qualifications please see www.nwo.nl/en/funding/funding/funding+process+explained/nwo+qualification+system.



Data management

The data management section in the application is not evaluated and therefore not included in the decision about whether to award funding. However, both the referees and the committee can issue advice with respect to the data management section. After a proposal has been awarded funding, the researcher should elaborate the data management section into a data management plan. Applicants can use the advice from the referees and the committee when writing the data management plan.

A project awarded funding can only start after NWO has approved all starting documents and the 'Conditions of Grant' contract with NRF has been signed. NRF and NWO will liaise to ensure that both South African and Dutch Principal Investigator will receive the final go simultaneously, enabling them to start the project at the same time.

Letter of Intent

13 August 29 August 2019

Submission deadline full proposals

Full proposals 26 September 2019

Referees are consulted

October-December 2020 January 2020

Applicants can submit a rebuttal. Consortia have 5 working days to submit a rebuttal, via

webinar on Impact Strategy, including Theory of Change and Impact Pathway

the ISAAC account of the Netherlands-based Principal Investigator

Submission of Letter of Intent by Dutch Principal Investigator

February 2020 IAC meeting

March 2020 Decision WOTRO Steering Committee and NRF RISA Executives

March 2020 NWO and NRF inform applicant about the decision

June 2020 Applicants should start no later than June 2020 with the execution of their project

While NWO and NRF strive to meet the above time frame, NWO and NRF reserve the right to deviate from the indicated dates.

4.2 Criteria

4.2.1 Eligibility criteria

The administrative eligibility will be checked at desk officer level by NWO and NRF. Applications that are not complete, have not been completed correctly, or have not been submitted on time to both organisations will not be admitted to the assessment procedure. This also applies if, after receiving the opportunity to correct the application, the Principal Investigators do not resubmit the application within the given time frame. If correction of an application, or the submission of necessary additional information, is possible, the Principal Investigator will be given to the opportunity to correct their application and/or submit the necessary additional information within an indicated time frame. If the Principal Investigator is unable or unwilling to comply with this request, the application will not be admitted to the assessment procedure.

Eligibility concerns compliance with the conditions set in this Call. Formal criteria are:

- Timely received Letter of Intent via email southafrica-merian@nwo.nl;
- Timely received application via NWO's electronic application system ISAAC and NRF online submission system;
- Application has been submitted by the Dutch Principal Investigator and the South African Principal Investigator, who were both mentioned in the Letter of Intent, and meet national eligibility criteria as specified in Section 3.1;
- Specific conditions (as outlined in Sections 3.1, 3.2, Annexes 6.2, 6.3 and 6.4, and the notes in the application form) have been applied;
- Completed and signed application form, signed by all principal investigators, (co-)applicants and collaboration partners;
- · The project entails research in the realm of this Call;
- · Composition of consortium complies with the requirements;
- · Format, length of text, language (English) is as required;
- Budget conditions are met;
- Completed annexes are added.

The following annexes should be added:

- CVs of Principal Investigators, co-applicants and collaboration partners mentioned in questions 1b and 1d of the application form;
- Letters of commitment of all consortium organisations, outlining the availability and commitment of consortium members, signed by heads/directors of the participating department or organisation:
- · Draft Consortium Agreement;



- Letters of guarantee from parties providing co-financing (if applicable), which are unconditional and do not contain any opt out clauses;
- The budget requested from NWO, uploaded as a separate Excel file. South African Principal Investigators should also add the Excel budget of their partnering Dutch Principal Investigator when uploading their application to the NRF submission system.

No additional annexes are allowed. Please include the annexes in your application unless otherwise specified. Do not upload them as separate documents in ISAAC.

Applicants will receive written confirmation of receipt within two weeks after the deadline of this Call, stating whether or not the application has been accepted into the selection procedure.

4.2.2 Assessment criteria

Applications will be assessed according to the following criteria:

- I. Quality of the research proposal
- II. Quality of the consortium
- III. Potential scientific and/or societal breakthrough

The criteria carry equal weight and each count for one-third of the final assessment. The assessment criteria are further operationalised below:

- I. Quality of the research proposal
 - Scientific importance of the proposed research in relation to the thematic focus of the Call;
 - Clarity of research questions, including the relation to the chosen specific region, province or local municipality;
 - Innovativeness of the research question and approach;
 - Complementarity to other research programmes or (inter)national research agendas;
 - Interdisciplinarity and transdisciplinarity; the proposal incorporates the scientific disciplines necessary for addressing the problem, as well as knowledge from outside the scientific community;
 - Suitability and feasibility of the approach and methodology;
- II. Quality of the consortium
 - Quality of the involved research partners,
 - Quality of the South African-Dutch collaboration, including equality in the partnership;
 - Potential for long-term knowledge relations;
 - Coherence and complementarity of the consortium, including organisation of the research and the genuine involvement of a South African historically disadvantaged universities;
 - Experience in supervising postgraduate students (taking into consideration the South African transformation agenda⁵);
 - Relevant (societal and/or governmental) partners for the successful execution of the project have been included and embedding of the research;
 - Quality of knowledge co-creation, including attention to and involvement of the complete knowledge chain;
- III. Potential scientific and/or societal breakthroughs
 - Relevance for society, including the relevance of the proposed research for the focus of the Call:
 - Degree to which the proposal aims for scientific and societal breakthroughs;
 - Quality of stakeholder analysis and involvement of wider public/specific target groups;
 - Quality of the Impact Strategy, including Theory of Change and Impact Pathway, indicators, and plans for knowledge transfer, utilisation, and valorisation;
 - Quality of communication plan for knowledge transfer, including outreach to industry, societal partners, and/or other stakeholders.

5 Contact details

5.1 Contact

5.1.1 Specific questions

For specific questions about Cooperation South Africa-The Netherlands: Water-Energy-Food Nexus and this call for proposals please contact:

Contact person NWO:

⁵ See https://www.dst.gov.za/images/2019/White_paper_web_copyv1.pdf



Fleur Boulogne +31 70 349 50 47 | +31 70 349 40 94 southafrica-merian@nwo.nl

Contact person National Research Foundation: Teuns Phahlamohlaka +27 12 481 4385 Teuns.phahlam@nrf.ac.za

5.1.2 Technical questions about the electronic application system ISAAC

For technical questions about the use of ISAAC please contact the ISAAC helpdesk. Please read the manual first before consulting the helpdesk. The ISAAC helpdesk can be contacted from Monday to Friday between 10:00 and 17:00 hours CE(S)T on +31 (0)20 346 71 79. However, you can also submit your question by e-mail to isaac.helpdesk@nwo.nl. You will then receive an answer within two working days.

For technical questions on the NRF online submission system please contact Mr Stephen Dlamini on tel. +27 12 481 4037 or email. dlamini@nrf.ac.zaOR the NRF Support Desk on email: supportdesk@nrf.ac.zaand tel. +27 12 481 4202.

6 Annexe(s)

Annex 6.1: Letter of Intent

Annex 6.2: Overview NWO budget modules

Annex 6.3: NRF budget allocation per allowable research activities

Annex 6.4: Format Letter of Commitment

Annex 6.5: Format Impact Pathway

Annex 6.6: List of historically disadvantaged universities

6.1 Letter of Intent Format

Format Letter of Intent

The Letter of Intent is a mandatory step in the procedure. Proposals that are not preceded by a Letter of Intent are excluded from the assessment procedure.

The Letter of Intent should be written in English, and should be submitted on the writing paper of the institute of the Dutch Principal Investigator, using the format below. The Letter of Intent should be signed by the Netherlands-based Principal Investigator and South African Principal Investigator.

Please copy the following on the writing paper and complete:

Subject: Letter of Intent

Call for proposals, 2019 Cooperation South Africa-The Netherlands Programme

Project title:

Project duration:

Names and affiliation of consortium members: please note that the names of the Dutch Principal Investigator and South African Principal Investigator must be the same as in the final application

Summary of the project: Max. 750 words including aim / focus / research questions / alignment to the foci of the Call

Name and signature Principal Investigator(s)

The Letter of Intent should be submitted in electronic form (PDF format) by e-mail to: southafrica-merian@nwo.nl

6.2 Budget Modules NWO grant:

The following modules can be applied for from the NWO grant. Please use the budget format in Annex



6.5 while completing your budget. If you are asked to provide justification, please do so in section 4b. of your proposal.

Please note that you can apply for each module multiple times, and that the maxima indicated are per time the module is requested unless "per project" is specified.

1. Module Personnel: a) PhD/PDEng/MD PhD; b) Postdoc; c) Non Scientific Personnel; d) Personnel at universities of applied sciences (HBO); e) Research leave; f) Other scientific personnel; g) Salary applicant

NB: Remunerations for PhD scholarship students at a Dutch university are not eligible for funding from NWO.

• Module 1a) PhD/PDEng/MD PhD

The guideline is that 1 fte PhD for 48 months or 0.8 fte for 60 months can be applied for. If a different duration of appointment is desired for the realisation of the proposed research, then the guidelines may be deviated from as long as this is well justified (e.g. PDEng 2 years or MD PhD longer than 4 years).

The salary costs will be remunerated according to the agreements in the 'Agreement for Funding Scientific Research' made with the Association of Universities in the Netherlands and are based on the collective labour agreement of the Dutch universities (for ZonMw, the costs are based on the collective labour agreement of the Netherlands Federation of University Medical Centres). In addition to salary costs, the project employee funded by NWO will receive a one-off individual based for (5.5,000) to appearage his or has rejectific agreement and the maximum.

bench fee (€ 5.000) to encourage his or her scientific career. The agreement and the maximum amounts for personnel costs can be found at https://www.nwo.nl/approval-of- funding-for-scientific-research-2008 and https://www.nwo.nl/salarytables.

• Module 1b) Postdoc

The guideline is that the appointment period of a postdoc can be between 12 and 48 months. The minimum size of the appointment is 0.5 fte for 12 months. This deployment can be spread over a longer or shorter period, for example across the entire duration of the project. If the applicants wish to deploy expertise for a shorter period of time, then the material credit can be used for this.

The salary costs will be remunerated according to the 'Agreement for Funding Scientific Research' made with the Association of Universities in the Netherlands (for ZonMw, the costs are based on the collective labour agreement of the Netherlands Federation of University Medical Centres).

• Module 1c) Non-scientific personnel

For the appointment of non-scientific personnel, specifically needed for the research project which funding is applied for, a maximum of € 100,000 can be requested with this module. This can concern personnel such as student assistants, programmers, technical assistants, analysts, et cetera. This module can only be applied for in combination with modules 1a and/or 1b.

The minimum size of the appointment is 0.5 fte for 12 months. The minimum appointment can be spread over a longer period of time. If the applicants wish to deploy expertise for a shorter period of time, then the material credit can be used for this.

Salary costs are dependent on the level and are remunerated in accordance with the agreements in the most recent 'Agreement for Funding Scientific Research' made with the Association of Universities in the Netherlands and are based on the collective labour agreement of the Dutch universities. The agreement and the maximum amounts for personnel costs can be found at https://www.nwo.nl/approval-of-funding-for-scientific-research-2008 and https://www.nwo.nl/salarytables.

• Module 1d) Personnel at universities of applied sciences

For the appointment of personnel at universities of applied sciences the system of the Handleiding Overheidstarieven (HOT) has been applicable since 1 January 2018. In particular the column 'cost covering rates per hour' (table 2.2, Integrale loonkosten), which is based on the collective labour agreement for universities of applied sciences with respect to the salary scale of the employee concerned. These rates are maximum values. For students, only the actual amounts paid to students can be entered as costs within the project. A maximum hourly rate of € 25.00 always applies to students.

· Module 1e) Research leave

In this module, the replacement costs for the main applicant and/or co-applicants can be applied for,



so that they can be released from educational, administrative and management tasks. The research leave grant can only be used in combination with and for the purposes of the projects or programmes applied for. For the research leave grant, a maximum size of 5 months applies based on 1 fte at the level of the postdoc employee as described in module 1b, with the hourly rates according to the agreement with the Association of Universities in the Netherlands. This budget is intended for the release of the applicants from educational and supervisory tasks so that they can work on the research for which funding has been requested. The employer can use the research leave grant to cover the costs of the replacement for the non-research tasks of the applicant(s) such as education, administrative and management tasks. These tasks must be specified in the proposal.

• Module 1f) other scientific personnel

Budget for other scientific personnel such as university graduates, graduate physicians and graduate physicians training to be specialists that are needed for the research project that funding is requested for. This module can only be applied for in combination with module 1a and/or 1b. The maximum period of appointment is 48 months for 1fte and 60 months for a part-time appointment. The minimum size of the appointment is 0.5 fte for 12 months. This deployment can be spread over a longer or shorter period, for example across the entire duration of the project.

2. Module Material credit

A maximum of € 15,000 per year per full-time scientific position (modules 1a, 1b and/or 1d) can be applied for, specified according to the three categories stated below:

Project-related goods/services

- consumables (glassware, chemicals, cryogenic fluids, etc.);
- equipment and/or software (e.g. lasers, specialist computers or computer programs, etc.);
 For these small items of equipment and/or software, the amount may not amount to more than € 160,000 per application.
- measurement and calculation time (e.g. supercomputer access, etc.);
- costs for acquiring or using data collections (e.g. from Statistics Netherlands);
- access to large national and international facilities (e.g. cleanrooms, synchrotrons, datasets, etc.);
- work by third parties (e.g. laboratory analyses, data collection, etc.);
- personnel costs smaller in size than those offered in module 1.

Travel and accommodation costs (for the employees for which a personnel grant was requested in modules 1a and 1b)

- travel and accommodation costs (national and international);
- congress visits (max. 2 per year);
- fieldwork;
- work visits.

Implementation costs

- national symposium/conference/workshop organised by the project;
- costs of open access publishing;
- data management costs;
- recruitment costs (incl. advertisement costs);
- costs involved in applying for licences (e.g. for animal experiments).

Costs that cannot be applied for are:

- basic facilities within the institution (e.g. laptops, desks, et cetera);
- maintenance and insurance costs.

If the maximum amount of \in 15,000 per year per full-time scientific position is not sufficient for realising the research, then it may be deviated from if a clear justification is provided in the proposal. The only exception to this is the amount for small equipment (\in 160,000).

4. Module Impact: a) Knowledge Utilisation

Module 4a) the aim of this module is to facilitate the use of the knowledge⁶ that emerges from the research. The contribution requested may be no more than € 25,000 and must be specified. As knowledge utilisation can assume very different forms in the various scientific disciplines, it is up to

For the purposes of this module, the definition for "knowledge transfer" as set out in the Framework for State aid for research and development and innovation (OJ 2014, C 198) applies.



the applicant to specify which costs are needed, for example for producing an educational package or realising a feasibility study into application possibilities, or the costs of submitting a patent application. For further information about knowledge utilisation, please see https://www.nwo.nl/en/about-nwo/organisation/nwo-domains/wotro/Impact+toolkit/.

NB: Please keep in mind the requirements regarding knowledge utilisation in the Call.

5. Module Internationalisation: a) Internationalisation; b) Money follows Cooperation

Module 5a) Internationalisation

The aim of this module is to encourage international collaboration. The contribution requested may be no more than € 25,000. The amount requested must be specified. If the maximum amount is not sufficient for realising the research, then it may be deviated from if a clear justification is provided in the proposal.

Funding can be requested for:

- travel and accommodation costs insofar as these are direct research costs that emerge from the
 international collaboration and for additional costs that are not covered in a different manner, for
 example from the bench fee. For an overview of the fixed maximum prices per country, see the
 listings of the Dutch government (https://www.rijksoverheid.nl/documenten/besluiten/2018/09/26/
 tariefliist-dienstreizen- buitenland-per-1-oktober-2018).
- travel and accommodation costs for foreign guest researchers
- costs for the organisation of international workshops/symposia/scientific meetings.
- Module 5b) Money follows Cooperation (MfC)

The aim of this module is to encourage international cooperation through the principle Money follows Cooperation, for which the national research budget is used for cross-border cooperation.

This module offers the possibility to deploy expertise from abroad for part of the research project.

In the proposal the applicant must convincingly demonstrate that the foreign knowledge institution contributes specific expertise to the research project which is not available in the Netherlands at the desired level for the project. If the arguments are not sufficiently convincing, then the funds for this module cannot be made available. This requirement is not applicable if NWO has concluded a bilateral agreement concerning Money follows Cooperation with the national research funding organisation of the country where the foreign knowledge institution is established.

Furthermore, the applicant needs to state the amount to be deployed for this module in the budget. The amount requested for this module must be less than 50% of the total project budget.

Knowledge institutions established in the following countries are excluded from participation in research projects funded by NWO due to international sanctions:

- the Islamic Republic of Iran
- Democratic People's Republic of Korea

A (researcher employed by) a foreign knowledge institution must satisfy the criteria for co- applicants as stated in paragraph 3.1 of this Call for proposals, except for the requirement that a co-applicant must be established in the Kingdom of the Netherlands.

In accordance with the NWO Grant Rules 2017, the knowledge institution of the main applicant will receive the full grant amount, and will subsequently be responsible for transferring the MfC-part of the subsidy to the foreign knowledge institution(s) in accordance with the approved project budget.

NWO assesses applications under this arrangement according to her policy concerning "geldstromen naar het buitenland". This policy aims to ensure that (inter)national laws and regulations, such as sanctions or laws concerning the prevention of money laundering and terrorism. Assessment according to this policy can result in the rejection of the application or in the setting of additional conditions in an eventual Grant Award Decision.

6.3 NRF budget allocation per allowable research activities

The purpose of this funding is to support joint research, human capacity development, mobility and research exchanges between researchers, Post-doctoral, Doctoral and Masters' students within the joint projects. From the NRF side, funding will be made available for the following joint research



activities undertaken as part of the joint research project.

Research-related costs

Activities to be supported may include expenses relating to field work such as conducting interviews/ surveys/ laboratory experiments, publication costs, research-related trips, etc.

Staff exchange programmes

Short term mobility or travel expenses (i.e. transport, accommodation, subsistence, visa and health insurance costs) of the research teams between the partnering countries.

A 3-year post-doctoral position

The funds make provision for a post-doc position equivalent to the value of the NRF Free Standing post- doctoral fellowships. The responsibilities of this position may also include the management and administration of this project.

3-year doctoral positions

The funds make provision for three (3) Doctoral students per project. Please note that the scholarship support will only be released on condition that nominated students are black and female students registered at any of the South African public higher education institution.

2-year Masters' positions

The funds make provision for three (3) Masters' students per project. Please note that the scholarship support will only be released on condition that nominated students are black and female students registered at any of the South African public higher education institution.

Masters, doctoral and post-doctoral research placements

The placements should enable the postgraduate students within the project to:

- learn valuable new skills or techniques;
- access facilities or resources not readily available at home;
- build relationships with potential new collaborators; and
- advance complementary collaborative research.

The duration of each placement is expected to be 3-6 months; with flexibility to split the placement into several shorter visits. Longer placements may be undertaken where this would add value and these should be justified within the application. Placements must enhance, not replace, the standard training and study support that the postgraduate students receive. These placements must be managed to fit within the original funded period of the studentship. Additional funding will not be made available through this Call to support studentship extensions for those undertaking international placements.

Applicants should include information about how these exchanges will be managed within their proposal.

Knowledge sharing costs (research uptake and science communication)

In support of activities organised by the partners, such as joint workshops, seminars, conferences, symposia, lecture presentations, capacity building sessions, meetings, local/regional dissemination of results aimed at involving stakeholders, and/or end users from outside the consortium with a minimum of 10% of the grant budget.

Small equipment, consumables and accessories

Up to a maximum of 25% of the budget may be budgeted for this item.

The following *will not* be funded from the *South African* side:

- consultant's fees;
- salaries;
- temporary staff fees;
- large equipment; and
- overheads.



The total amount requested from the NRF should not exceed R5.220mil per project. Funding will be made available for a maximum of 3-years, to be paid in annual instalments and exclusively for research activities commencing in 2020. The funds per project have to be utilised as follows:

- R3mil per project for research activities, mobility costs of the research team, small equipment and knowledge sharing costs per project (R1mil per year).
- R600 000 for 1 post-doctoral position per project at R200 000 per annum for 3-years (R155 000 non-taxable stipend plus R45 000 contribution towards research costs).
- R1.080mil for 3 Doctoral scholarships per project at R120 000 per student per annum for 3-years (R360 000 per student).
- R540 000 for 3 Masters' scholarships per project at R90 000 per student per annum for 2-years (R180 000 per student).

Please note that the scholarship support will only be released on condition that nominated students are black female South African/permanent residents registered at any of the South African public higher education institutions.

6 4 Format Letter of Commitment

[Template letter of commitment for consortium organisation]	
[The letter should be printed on the stationery of the consortium organisation concerned]	
[address main applicant]	
Concerns: Letter of Commitment	
	[Location], [date]
Dear [name main applicant],	
Through this letter, I confirm that [name consortium organisation] is available and committed to participate in the proposed project, entitled '[proposal title]', which was submitted to the '[Title of Call]'.	
[outline the availability and commitment of the consortium organisation]	
[if applicable, indicate the consortium organisation's total contribution in cash, or quantify the in kind contribution. This amount should be the same as indicated in the application form.]	
Yours sincerely,	
[signed by the head of the organisation/department]	
Location: []	[signature]

6.5 Format Impact Pathway

Date: [..]

Please note: this format is also already included in your application form.

Research outputs	Indicators	Research outcomes	Indicators	Impact
				1.
				2.
				3.

[NAME + POSITION]

6.6 List of historically disadvantaged universities

The following universities qualify as historically disadvantaged universities:



- 1. University of Fort Hare

- University of Limpopo
 University of Venda
 University of the Western Cape
- 5. Mangosutho University of Technology
- 6. Walter Sisulu University
- 7. University of Zululand8. Sefako Makgatho Health Sciences University