



## **FRAMEWORK DOCUMENT**

**Funding Instrument:**            **Equipment-Related Travel and Training Grants**

**Directorate:**                    **Human and Infrastructure Capacity Development**

**Date:**                              **February 2024**

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# 1. Strategic Context and Background

The Equipment-Related Travel and Training Grants (ERTTG) funding instrument seeks to improve the competitiveness of South African research by advancing the national research agenda as defined in the *National R&D Strategy*<sup>1</sup>, the *White Paper on Science, Technology and Innovation (2019)*; the *Science Technology and Innovation Decadal Plan 2022-2032* and the strategic objectives of the National Research Foundation (NRF). Collectively, these seek to promote and support research through human resource development and facilitate access to state-of-the-art research equipment.

The NRF through the National Equipment Programme (NEP) funding instrument supports the acquisition, upgrade and development of state-of-the-art research equipment at South African public universities, South African Science Councils (SCs), National Facilities (NFs), Museums and other NRF recognised research institutions as declared by the Department of Science and Innovation (DSI).

While the NEP funding instrument has, for more than ten years, made progress in addressing the research infrastructure needs of the country, the following challenges ensue:

- Access to regional and national multi-user equipment is reliant on the ability of researchers to travel to institutions across the country where the multi-user equipment is located;
- Specialised multi-user research equipment is not equally distributed across the various research institutions in South Africa (SA);
- Researchers in SA continue to require access to specialised equipment located at institutions nationally and abroad. Such equipment may not currently be available within their research institution and/or in SA;
- Sending samples to be analysed at various multi-user facilities, located either nationally or internationally, without being accompanied by the researcher; and
- Optimal access and utilisation of the available research infrastructure is dependent on the availability of funding support for:
  - Hosting of workshops that focus on on-site training of instrumentation specialists, technicians, operators, researchers, postgraduate students and other users; and
  - Outbound and inbound access to specialised equipment and global research infrastructure located at other institutions in SA and abroad.

In light of the aforementioned challenges the DSI and NRF has, over the past several years, funded both national and international travel costs in order to support researchers who require access to equipment that is not available either regionally or nationally. In addition, grants are awarded for the facilitation of workshops that focus on on-site training of instrumentation specialists, technicians and operators that are full-time employees,

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<sup>1</sup> DST (2002). *South Africa's National Research and Development Strategy*. Pretoria, South Africa. Accessible at: <http://www.dst.gov.za/index.php/resource-center/strategies-and-reports/159-south-africas-national-research-and-development-strategy>

researchers, postgraduate students at masters and doctoral level as well as postdoctoral fellows and other users of research equipment at a South African public research institution. This document provides a framework and guidance for the implementation of travel and training grants geared towards addressing the aforementioned activities.

## 2. Scope

The rationale of this funding instrument is to make funds available to support the broader research community to access state-of-the-art research equipment that is not available at their home institution or regionally or nationally. This will also include access to synchrotron facilities and other global research infrastructures. The grants are divided into two categories, namely:

- Equipment-related **Travel Grants**; and
- Equipment-related **Training Grants**.

### 2.1 Equipment-related Travel Grants

The objective of this intervention is to provide financial support for researchers, technical staff and postgraduate students to access state-of-the-art research equipment, within SA or abroad, that is not available at their own research institution, nor at other institutions regionally or nationally. This funding instrument is subdivided into two categories, namely:

**2.1.1 General Equipment Travel Grants** that make funds available to researchers requiring access to specialised equipment that is not available at their own institutions, regionally or nationally. The grant will cover national or international travel and subsistence costs as required as well as contributions towards the cost of equipment utilisation.

**2.1.2 Outbound or Inbound Travel Grants to Access Global Infrastructure (AGI).**

The two options for AGI are:

- **Outbound Global Infrastructure** located outside of SA such as the Joint Institute for Nuclear Research (JINR) in Dubna, Russia, the European Organisation for Nuclear Research (CERN) in Geneva, Switzerland and the European Synchrotron Radiation Facilities (ESRF) in Grenoble, France. Currently, research cooperation agreements between SA and JINR, CERN and ESRF respectively are in place. However, access to other synchrotron radiation facilities and global research infrastructure will also be considered for support.
- **Inbound Global Infrastructure** located in SA such as the South African Large Telescope (SALT), MeerKAT radio telescope, the International Centre for Genetic Engineering and Biotechnology (ICGEB), the Centre for High

Resolution Transmission Electron Microscopy (HRTEM) and the National Facilities (NFs).

## 2.2 Equipment-related Training Grants<sup>2</sup>

This intervention makes funds available for:

- Researchers to host or attend equipment-related workshops (physical or virtual) focussed on training technical staff, postgraduate students at masters and doctoral level as well as postdoctoral fellows and other users of:
  - Specialised or state-of-the-art research equipment; or
  - Feeder equipment that complements the capabilities of state-of-the-art research equipment.

Such equipment must have been acquired either through public funds or high-end equipment donated by the private sector. This type of intervention may include practical training and short courses on the use of such research equipment; and

- Institutions that have been awarded research equipment grants and require skills training from expert instrument scientists on the sustainable management of the research equipment. These institutions may apply for funding to host a visiting instrument scientist. The instrument scientist may be hosted by the applying research institution for a minimum period of one month to a maximum period of six (6) months due to his/her scarce skill in the use of a specific instrument that has been acquired through NRF and/or DSI funds.

## 3. Objectives

The Equipment-related Travel and Training Grants aim to support world-class research, enhance research collaborations nationally and internationally, and support the development of specialised skills required to sustainably manage and operate state-of-the-art research equipment.

The objectives of this funding instrument are to make funds available to support:

- The larger research community to access:
  - State-of-the-art research equipment that is not available regionally and/or nationally;
  - Natural science collections such as those located at museums; and
  - Training workshops on the use of specialised equipment or feeder equipment that have been acquired through public funds and high-end equipment donated by the private sector;

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<sup>2</sup> The initial training that forms part of the commissioning of new equipment will not be covered by this training grant as this may be factored into the purchase price of the equipment.

- Researchers and postgraduate students in SA to access global research infrastructure located nationally (e.g. SALT) or abroad such as synchrotron radiation facilities;
- Researchers and postgraduate students in SA to access natural science collections for the completion of their dissertations;
- Research institutions hosting equipment-related training workshops on the use of feeder and/or specialised equipment that is acquired either through NRF and/or DSI funds; and
- Hosting of Visiting Expert Instrument Scientists, that can aid NEP grantholder institutions to build capacity relating to the sustainable management of high-end equipment.

## 4. Types of Support

The travel and training grants are aimed at supporting:

### Travel Grants:

- Full-time masters and doctoral students that require training and/or access to infrastructure for the completion of their dissertations. The ***supervisor must apply on behalf of the postgraduate students*** and details of the students, including their name, race, gender and level of study, must be included in the application;
- Postdoctoral fellows – that require training and/or access to research infrastructure need support from their host/supervisor to apply;
- Technicians, instrument specialist and operators that are **full-time employees or staff on contract employment for two years** at a minimum, at a public research institution;
- Researchers or academics that are full-time employees or on a contract employment with a minimum duration of two years at a public research institution, who request to send samples to international institutions; and
- Researchers or academics that are full-time employees or on a contract employment with a minimum duration of two years at a public research institution, who require to access the software for data analysis that is imperative to their research.

### Training Grants:

Support is available for the following:

- Researchers or academics hosting equipment-related training workshops (physical or virtual) on the use of high-end equipment. The equipment-related training workshop must have regional and/or national benefit; and
- Hosting of an expert instrument scientist that is required to stay at a research institution for a minimum period of one (1) month to a maximum period of six (6) months due to his/her scarce skill in the use of a specific instrument that has been acquired through NRF and/or DSI funds.

## 5. Eligibility

### 5.1 Eligibility criteria

#### 5.1.1 Institutions

All South African public research institutions, including universities, SCs, NFs, museums and other NRF recognised research institutions.

#### 5.1.2 Applicants

All applicants, who are permanently employed or on a fixed-term contract (minimum of two years) and hold the position of Academic staff or Research equipment technicians, Operators and Instrument specialists, at an NRF recognised research institution, including South African public universities, SCs, NFs and Museums.

In the case of those researchers accessing synchrotron facilities, the outcomes letter from the peer-review process undertaken by the synchrotron facility must be attached to the application.

In the case of institutions applying to host an expert instrument scientist, the expert instrument scientist is required to stay at the host research institution for a minimum period of one month due to his/her scarce skill in the use of a specific instrument that has been acquired through NRF and/or DSI funds.

#### 5.1.3 Period of Support

- Applications under **Review Period 1** will be considered for support for travel and training activities taking place from **01 July 2024 to 31 December 2024** and
- Applications under **Review Period 2** will be considered for support for travel and training activity taking place from **01 January 2025 to 30 June 2025**

#### **Travel and Subsistence<sup>3</sup>**

##### **National travel:**

The NRF will cover the costs of:

- The cheapest return economy air ticket;
- Accommodation (*Local accommodation costs are limited to three-star rating establishments*);
- Subsistence and travel allowance; and
- Contributions towards the cost of instrument utilisation, namely bench fees.

##### **International travel:<sup>4</sup>**

These will be considered on a **case-by-case** basis and the NRF provides guidelines for rates in Appendix A.

**Table 1: Budget Guidelines: Maximum NRF Investment per Activity**

	NATURE OF THE ACTIVITY			
	National Travel/Training Support	International Travel/Training/ Synchrotron/ other Global Infrastructure Support	Hosting an Equipment-related Workshop	Hosting a Visiting Instrument Scientist
	R	R	R	R
<b>Travel to Access/Train Research Infrastructure</b>				
Applicant	35 000	75 000	N/A	N/A
Applicant plus one Co-applicant	45 000	100 000	N/A	N/A
Applicant plus two Co-applicants	60 000	125 000	N/A	N/A
<b>Hosting an Equipment-related Workshop</b>				
Applicant	N/A	N/A	75 000	N/A
<b>Hosting a Visiting Instrument Scientist</b>				
Accommodation, subsistence, local travel for 1 to 6 months				20 000 per month
Cheapest economy return Airfare				40 000

**Note:** Requests for virtual training workshops will exclude costs that are only applicable to the hosting of physical workshops. All budget requests must be accompanied by a detailed motivation justifying the requested budget.

## 5.2 Exclusion Criteria

**Undergraduate and honours students are not eligible** to apply for Equipment-related Travel and Training Grants. In addition, the following instrument-specific exclusions are applicable.

**Travel Grants:** Requests for funding to support:

- Research that advances a private enterprise;
- Outbound visiting scientists;
- Attendance of conferences and/or training workshops that are not equipment-related; and
- Testing the functional capability of equipment that an applicant may procure



through the NEP grant. This must be achieved by the applicant in partnership with the supplier.

**Training Grants:** Requests for funding to support:

- Training that addresses the applicant's institutional needs only; and
- Basic training of operators and technicians, provided by the supplier as part of equipment acquisition (if training is needed over and above the initial training with the supplier, a strong motivation is needed).

Grantholders who do not submit post-travel/training reports within one (1) month after completion of travel/training will not be considered for further funding in this programme.

***Grants awarded are not transferable.***

## **6. Application Process**

### ***Application Process***

Applications submitted may be for a single researcher and/or on behalf of one or two postgraduate student/s. In line with the NRF's endeavour for a fair and objective granting process, all applications are subjected to the following:

- Applicants will not be supported for more than two applications per annum, unless under exceptional conditions;
- Given the competitive nature of the programme and budgetary limitations, funding is not guaranteed;
- A panel consisting of external and internal reviewers will assess and select applications according to the stipulated criteria;
- Priority will be given to black and female researchers and applicants based at historically disadvantaged institutions (HDIs); and
- An application using the same proposal as that which was previously funded will not be funded.

### ***Application requirements***

The submitted proposal must address the requirements listed in table 2.

**Table 2: Proposal requirements for the application**

CATEGORY	APPLICATION REQUIREMENTS
<p><b>National and International Equipment Travel Grants</b></p>	<ul style="list-style-type: none"> <li>• There must be a clear indication that the research equipment the applicant proposes to access <i>is not</i> available in the applicant’s own institution, nor at other institutions regionally or nationally. This may include letters from other institutions explaining that similar equipment will not be able to support the research activities of the applicant;</li> <li>• Applications for students and postdoctoral fellows must be submitted by the supervisor who will be accountable for the <b>Conditions of Grant</b> awarded;</li> <li>• Applications must be supported by the Designated Authority (DA) at the research institution;</li> <li>• <b>National Travel:</b> Travel grants to support access to research equipment nationally may not exceed R35 000 (thirty-five thousand rand) per individual applicant, unless strongly motivated for by <b>both the applicant and the DA</b> at the research institution; and</li> <li>• An applicant may travel with one co-applicant (preferably a postgraduate student) and a maximum of two co-applicants. The applicant will be awarded an additional R10 000 (ten thousand rand) for the first applicant and R15 000 (fifteen thousand rand) for the second co-applicant. The maximum budget will be R60 000* (sixty thousand rand) when travelling with two co-applicants i.e., a maximum of three individuals travelling at the same time (NB: This number is inclusive of the applicant).</li> <li>• <b>International Travel:</b> International travel grant maximum per individual applicant may not exceed R75 000 (seventy five thousand rand) unless strongly motivated for by <b>both the applicant and the DA</b> at the research institution. An applicant travelling with two co-applicants (preferably postgraduate students) will be awarded an additional amount of R25 000 per applicant. The maximum budget will be R125 000 (one hundred and twenty five thousand rand) when travelling with two co-applicants i.e., a maximum of three individuals travelling at the same time (NB: This number is inclusive of the applicant).</li> </ul> <p><b>Where the cost of the trip exceeds R60 000 (sixty thousand rand) for a national trip and R125 000 (one hundred and twenty five thousand rand) for an international trip, the applicant must clearly demonstrate that co-applicants will accompany the applicant and that additional funding has been secured to cover the full cost of travel.</b></p> <p><b>*See budget guidelines in 5.1.3 above</b></p>
<p><b>Synchrotron Travel Grants</b></p>	<ul style="list-style-type: none"> <li>• A strongly motivated proposal that includes supporting documentation such as invitation letters (or any other supporting documentation) from the synchrotron radiation facility that the applicant proposes to visit;</li> </ul>

CATEGORY	APPLICATION REQUIREMENTS
	<ul style="list-style-type: none"> <li>• Letter of acceptance from the synchrotron facility, indicating the applicant was successful in securing beam time;</li> <li>• Applications for students and postdoctoral fellows must be submitted by the supervisor/host who will be accountable for the <b>Conditions of Grant</b> awarded;</li> <li>• Applications must be supported by the DA at the research institution; and</li> <li>• The maximum request per individual applicant may not exceed R75 000 (seventy five thousand rand) unless strongly motivated for by both the applicant and DA at the research institution. An applicant travelling with two co-applicants (preferably postgraduate students) will be awarded an additional amount of R25 000 per applicant. The maximum budget will be R125 000 (one hundred and twenty five thousand rand) when travelling with two co-applicants i.e., a maximum of three individuals travelling at the same time (NB: This number is inclusive of the applicant).</li> </ul> <p><b>Where the cost associated with an international synchrotron radiation facility visit of two weeks exceeds R125 000* (one hundred and twenty five thousand rand), the applicant must clearly demonstrate that co-applicants will accompany the applicant and that additional funding has been secured to cover the full cost of travel.</b></p> <p><b>*See budget guidelines in 5.1.2 above.</b></p>
<b>Hosting an Equipment-related Workshop</b>	<ul style="list-style-type: none"> <li>• Adequate motivation must be provided for the need for the training, which must have either regional and/or national impact;</li> <li>• The proposed training programme must include the training of researchers based at historically disadvantaged institutions (HDIs), black and female researchers/technicians as well as postgraduate students;</li> <li>• Where the cost of <b>hosting</b> an equipment-related workshop exceeds R75 000 (seventy five thousand rand), the applicant must clearly demonstrate that additional funding has been secured to cover the full cost;</li> <li>• It is encouraged that applicants engage with suppliers for such training workshops.</li> </ul>
<b>Hosting a Visiting Instrument Scientist</b>	<ul style="list-style-type: none"> <li>• Where a visiting instrument scientist is required to stay at a research institution for a minimum period of one (1) month and maximum period of six (6) months due to his/her scarce skill in the use of a specific instrument. A commitment letter from the institution must be attached to the application;</li> <li>• A Visiting Instrument Scientist may be hosted for a minimum period of one (1) month at an amount of R20 000 (twenty thousand rand) per month and may be hosted for a maximum period of six (6) months at a maximum amount of R120 000 (one hundred and twenty thousand rand);</li> <li>• The return airfare of the visiting scientist will be capped at R40 000 (forty thousand rand) for an economy air ticket.</li> </ul> <p><b>*See budget guidelines in 5.1.2 above.</b></p>

Retrospective funding that spans a period of *six* months can be considered in this funding instrument. The additional information listed in table 3 is required for Synchrotron Travel Grants, Equipment-related National and International Travel Grants, Hosting of Equipment-related Workshops and Visiting Instrument Scientists:

**Table 3: Information required for travel or training**

TYPE OF TRAVEL OR TRAINING	REQUIREMENTS
<b>Synchrotron Travel Grant</b>	<ul style="list-style-type: none"> <li>• Confirmation of the outcome of the peer-review process and allocated beam time from the host synchrotron facility; and</li> <li>• Copy of Quotation/proof of flights, accommodation, and cost of subsistence and travel allowance.</li> </ul>
<b>National and International Travel Grants</b>	<ul style="list-style-type: none"> <li>• Letter of invitation from the research infrastructure facility, and/or Confirmation Letter that you have been allocated time to access the equipment; and</li> <li>• Copy of Quotation/proof of flights, accommodation, and cost of subsistence and travel allowance.</li> </ul>
<b>Hosting an Equipment-related Workshop</b>	<ul style="list-style-type: none"> <li>• Detailed Workshop Costing Plan;</li> <li>• Programme for the equipment-related workshop;</li> <li>• CV of Trainer; and</li> <li>• Confirmation letter of Attendance from the trainer.</li> </ul>
<b>Hosting a Visiting Instrument Scientist</b>	<ul style="list-style-type: none"> <li>• Letter of invitation to the visiting scientist;</li> <li>• Letter of acceptance from the visiting scientist;</li> <li>• CV of visiting scientist;</li> <li>• Motivation letter from the DVC: Research indicating need for hosting the visiting scientist, confirmation of institution's financial commitment and confirmation of the scientist's duration of stay; and</li> <li>• Copy of Quotation/proof of flights and accommodation.</li> </ul>

## 7. Evaluation Process

The scorecard shown in table 4 will be used to evaluate all applications for ERTTG grants.

**Table 4: ERTTG Score Card**

Review Criteria	Weight (%)	Descriptor
<p><b>1. Scientific Motivation of proposed</b></p>	<p><b>45%</b></p>	<p><b>Travel or training request</b></p> <ul style="list-style-type: none"> <li>- Purpose and scientific motivation of the proposed travel or training in the applicant's proposal.</li> <li>- Evidence that equipment to be accessed is not available in the applicant's own institution, nor at other regional/national institutions.</li> <li>- A detailed description of equipment to be accessed, including its capabilities and alignment with the proposed activities.</li> <li>- Invitation letter from the research facility to be visited and/or confirmation that the applicants has been allocated time to access the equipment.</li> <li>- In the case of synchrotron facility visit, the applicant need to have an invitation letter/supporting documentation from the synchrotron radiation facility as well as acceptance letter from the facility allocating time to the applicant.t;</li> </ul> <p><b>OR</b></p> <p><b>Hosting of equipment related workshop:</b></p> <ul style="list-style-type: none"> <li>- Purpose and scientific motivation of the proposed hosting of equipment related workshop in the applicant's proposal. Demonstration of regional/national benefit of hosting the workshop.</li> <li>- A detailed description of the equipment available at the institution that requires hosting of a workshop, including its capabilities.</li> <li>- Details of workshop and workshop programme.</li> <li>- CV of trainer, confirmation letter of attendance from trainer;</li> </ul>

Review Criteria	Weight (%)	Descriptor
		<p><b>OR</b></p> <p><b>Hosting a visiting instrument scientist</b></p> <ul style="list-style-type: none"> <li>- Purpose and scientific motivation of the proposed hosting of a visiting instrument scientist in the applicant's proposal.</li> <li>- A detailed description of the equipment available at the institution that necessitates expert training, including its capabilities.</li> </ul>
<p><b>2. Expected Outputs/ Outcomes</b></p>	<p><b>25%</b></p>	<p><b>Human capital development and other Outputs</b></p> <ul style="list-style-type: none"> <li>- Staff or postgraduate training); and/or,</li> <li>- Completion of a dissertation, Publications; and/or, Other outputs.</li> <li>- Development of specialized skills required to sustainably manage and operate state of the art research equipment.</li> <li>- Note: equity and redress will be taken into consideration when reviewing applications.</li> </ul>
<p><b>3. Potential Impact</b></p>	<p><b>10%</b></p>	<p><b>Knowledge/technological and societal impact advancement</b></p> <ul style="list-style-type: none"> <li>- Potential advancement in the applicant's field of study on national priorities</li> <li>- NRF broad research categories; National strategy; Sustainability</li> </ul>
<p><b>4. Collaborations</b></p>	<p><b>10%</b></p>	<p><b>Transformation, equity, inclusion and relevance</b></p> <ul style="list-style-type: none"> <li>- Evidence of collaborations with HDIs,</li> <li>- Evidence of collaborations with regional, national; and/or international institutions</li> </ul>
<p><b>5. Financials</b></p>	<p><b>10%</b></p>	<p><b>Budget Motivation</b></p> <ul style="list-style-type: none"> <li>- Feasibility of proposed budget</li> </ul>

**Table 5: Score card rating scale**

Descriptor	General guiding notes
<b>Poor (0)</b>	The proposal provided insufficient information regarding the requirements of the funding instrument <sup>2</sup> , and/or has numerous inconsistencies for a fair evaluation to be conducted.
<b>Unsatisfactory (1)</b>	The proposal only partially addresses the requirements of the funding instrument and has significant issues that should be addressed by the applicant.
<b>Fair (2)</b>	The proposal meets all minimum/ necessary requirements of the funding instrument.
<b>Good (3)</b>	This is a strong proposal that fully addresses the entire requirements of the funding instrument.
<b>Excellent (4)</b>	This is an exceptionally strong proposal that is well thought through and strongly motivated, as well as exceeds all the requirements of the funding instrument.

## 8. Evaluation of the Funding Instrument

The Equipment-related Travel and Training Grants funding instrument will undergo an independent evaluation at intervals determined by the NRF.

## 9. Grantholder Responsibilities

### *Reporting*

All grantholders are required to submit a Progress Report to the NRF no later than **30 (thirty) days** after the activity funded under ERTTG, has been completed. The Progress Report will be available on the NRF Connect System at <https://nrfconnect.nrf.ac.za>. The report should be scrutinised and validated by the relevant DA before submission to the NRF.

The following types of outputs are expected to emanate from the activities and should be reported on stating the:

- Scarce skills development on the use of specialised equipment and analytical systems;
- Training of Black and female researchers, as well as researchers from HDIs; and
- Research outputs:
  - Publications;
  - Conference Proceedings;
  - Collaborations;

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<sup>2</sup> Funding instrument requirement refers to: Scientific motivation, potential impact, expected outputs and feasibility of the proposed budget.

- Improved laboratory processes; and
- Other (explain).

Successful applicants who do not submit post-travel/training reports within **thirty (30) days** after completion of the activity will not be considered for further funding in this funding instrument.

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## **APPENDIX A: Guidelines for NRF Subsistence Rates**

Subsistence rate for local travel in South Africa = R522 per day. Subsistence allowance for foreign travel can be found on the South African Revenue Service (SARS) website (<https://www.sars.gov.za/tax-rates/employers/subsistence-allowances-and-advances/>).