



Funding Instrument: South African Research Chairs Initiative (SARChI)

Domains:

Research Chairs and Centres of Excellence &
Grants Management & Systems Administration

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1. Strategic background

1.1 Context

The *White Paper on Science and Technology* (1996) and the *National Research and Development Strategy* (2002) put emphasis on the need for South Africa to transform its Science, Engineering and Technology (SET) workforce. Other policy and strategies of government, including the *Human Resource Development Strategy* (2009) and the *Medium Term Strategic Framework* (2009) note the shortage of high-level skills as a significant constraint in the development of the economy and society. In this regard, South Africa must produce a greater number of highly skilled individuals; particularly in SET, to achieve the goal of “*an equitable, sustainable, and inclusive growth path that brings decent work and sustainable livelihoods, education, health, safe and secure communities, and rural development*”.

The South African Research Chairs Initiative (SARChI) was established in 2006 by the Department of Science and Technology (DST). This Funding Instrument is managed by the National Research Foundation (NRF) through a contractual agreement with DST. It is a strategic intervention of the South African government designed to attract and retain excellence in research and innovation at South African universities. In particular, the Instrument is aimed at increasing scientific research capacity through the development of human capacity and stimulating the generation of new knowledge. It is also intended to support the realisation of South Africa’s transformation into a knowledge economy in which the generation of knowledge translates into socio-economic benefits.

SARChI is designed to significantly expand the scientific research base of South Africa in a way that supports implementation of the national Research and Development policies. Since inception, 153 Research Chairs have been awarded in various disciplines and research fields and the Funding Instrument has been successful in retaining leading South African scientists in the university system

and attracting leading foreign researchers and expatriate researchers to South Africa.

1.2 SARCHI objectives

The main goal of the initiative is to strengthen and improve research and innovation capacity of public universities for producing high quality postgraduate students, research, and innovation outputs. The objectives of SARCHI are to:

- Expand the scientific research and innovation capacity of South Africa;
- Improve South Africa's international research and innovation competitiveness while responding to social and economic challenges of the country;
- Attract and retain excellent researchers and scientists;
- Increase the production of Masters and Doctoral graduates; and
- Create research career pathways for young and mid-career researchers, with a strong research, innovation and human capital development output trajectory.

1.3 Guiding principles for SARCHI

The following principles will inform the awarding of the Research Chairs to the successful university:

- SARCHI is a strategic instrument aimed at strengthening research and innovation capacity in public universities in South Africa, enhancing the training of a new generation of researchers and the further development of established researchers in all knowledge areas while responding to national priorities and strategies;
- SARCHI is a Funding Instruments for universities, and Research Chairs may be held by a university in partnership with a public research institution such as: another university, a science council, a national research facility or a public research institution;

- Public universities in South Africa will bid for the Research Chair in an open and competitive process, hence the Chair will not pre-allocated to an institution;
- Each university may submit a maximum of five (5) applications for the Research Chairs in this Call;
- The Research Chair must be in alignment with the university Programme and Qualification Mix (PQM) approved by the Department of Higher Education and Training;
- The Chair will be expected to dedicate at least 80% of their time conducting research, supervising an average of 10 Masters and Doctoral students per annum and mentoring emerging researchers. The remainder of the time may be dedicated to administration or undergraduate teaching;
- Research Chairs are tenable at two Tiers. Tier 1 is for Chairs who are established researchers that are recognised internationally as leaders in their field and/or have received substantial international recognition for their research contributions. Tier 2 is for Chairs who are established researchers, generally under the age of 40 (forty) years with a strong research, innovation and human capital development output trajectory, and the potential to achieve substantial international recognition for their research contributions in the next five to ten years.
- Candidates from abroad that are willing to spend at least 50% of their time within South Africa are eligible for consideration, at the Tier 1 level, with the intention of attracting candidates, including African scholars and South Africans in the diaspora, that has distinguished themselves in their research fields. However, international candidates at Tier 2 level are required to reside full-time in South Africa for the duration of the Research Chair award.

1.4 University accountability for SARChI Chairs

A Chair may be appointed by the university, at the level of an Associate Professor or full Professor, benchmarked nationally. The Chair will fit into the normal management structures of the host institution. However, accountability for the Research Chair will reside with the Vice-Chancellor or Deputy Vice-Chancellor responsible for research at the South African host university.

1.5 Profile of candidates

1.5.1 SARChI Research Chairs

The Minister of Science Technology, Ms Naledi Pandor approved the proposal to award **twenty new SARChI Research Chairs** in the 2014/15 financial year. The intention of these Research Chairs is to attract and retain established researchers of high caliber, within the universities, recruiting individuals from within South Africa and globally with particular emphasis on the diaspora. ***The candidates to be appointed for these must be female South African citizens and permanent residents.***

The rationale for the award of the Chairs to female South African citizens and permanent residents at both Tier 1 and Tier 2 is due to the current statistics on the 143 filled Chair positions in which only 34% are female (August 2013).

1.5.2 SA-UK Bilateral Research Chairs

The NRF has entered into an agreement with the Newton Fund in order to build on the existing friendly and co-operative relationship between South Africa and the United Kingdom. **Three positions** are available for the SA-UK Bilateral Research Chairs. These Chairs will be funded in partnership with the British Council, a delivery partner of the Newton Fund. The broad objectives of the SA – UK Research Chairs are to strengthen research and innovation capacities at the highest scientific level in selected research domains; and promote international exchange and cooperation with scientists in the United Kingdom. **There are no restrictions on the gender and citizenship status of the candidates.**

However, the candidate must be based in a UK institution and be able to spend 50% of his/her time in both countries for the duration of the Chair term.

The NRF will require the approved candidate for the SARChI Chair to enter into a five-year performance agreement in the form of '*Conditions of Grant*' and will evaluate the performance of the Chair against the research plan, stated objectives and targets. The track record of the nominated candidate is therefore very important to the selection process and success of the Research Chair.

The universities submitting an application to host a Research Chair will be able to nominate up to three candidates (to be ranked in terms of preference by the university) for the Chair position (i.e. up to three applications per Research Chair). Nominated candidates may be current staff members or new recruits to the universities. For a university, where a Chair is taken up by a current academic staff member the university must immediately initiate a process to fill the vacated position with a suitably qualified candidate¹. The replacement candidate must be employed on a full-time basis for at least the duration of the tenure of the Research Chair. Where such replacement candidates are not young, black or female, the university must develop a succession plan designed to develop a range of possible candidates with competitive capacity within two cycles of a Research Chair award.

All candidates who are requested by the DVCs: Research to apply for a Research Chair must be established researchers that hold a doctoral degree or an equivalent research qualification and must submit a proposed research programme that is innovative, original and of high quality. Following the peer review of the full proposal and the *curriculum vitae* of the candidate, Chairs may be approved at the Tier 1 or Tier 2 level based on their past research and innovation outputs, track record in supervising and mentoring postgraduate students and postdoctoral fellows and national and international recognition for

¹ In short, this Initiative must **add** to the number of university research and academic staff.

their research contributions. The criteria that must be met by nominated candidates for approval at the Tier 1 or Tier 2 level are detailed in Table 1.

Table 1: Criteria for SARChI Tier 1 and Tier 2 Research Chairs

Tier 1 Research Chairs	Tier 2 Research Chairs
<ul style="list-style-type: none"> • Should be appointed at the level of a full Professor benchmarked nationally; • Should be an outstanding and innovative researcher whose accomplishments have made a major impact in their field; • Should be recognised internationally as an undisputed leader in their field and/or have received substantial international recognition for their research contributions; • Should have a superior record in attracting and supervising post graduate students and postdoctoral fellows, taking into account the practices of the field; and • Should reside full time in South Africa for the duration of the Research Chair award. Candidates from abroad, including African scholars and South Africans in the diaspora, that are willing to spend at least 50% of their time within South Africa are eligible for consideration. 	<ul style="list-style-type: none"> • Should be appointed at the level of an Associate Professor or full Professor benchmarked nationally; • Should be an established researcher, generally under the age of 40 (forty) years, with a strong research, innovation and human capital development output trajectory; • Should have the potential to achieve substantial international recognition for their research contributions in the next five to ten years; • Should have demonstrated the ability to attract and successfully supervise postgraduate students and postdoctoral fellows; and • Should reside full-time in South Africa for the duration of the Research Chair award. Candidates from abroad, including African scholars and South Africans in the diaspora, who are generally under the age of 40 (forty) years, are eligible for consideration.

2. Proposal submission and assessment process

This section of the Framework and Funding Guide provides details of the research focus areas of the proposed awarding of the 23 Research Chairs. It

also describes the process for proposal submission and assessment and provides details on the call timelines.

2.1 Research Focus and thematic areas

The proposed thematic areas for the awarding of new Research Chairs are intended to support scientific research and innovation generally, but also to respond to the five priorities of government, namely:

- Creation of decent work and sustainable livelihood;
- Water, energy and the environment;
- Education;
- Health;
- Rural development, food security and land reform; and
- The fight against crime and corruption.

These have been expanded into priorities of the *Medium Term Strategic Framework* (MTSF) and its 12 Outcomes. The following outcomes have been prioritised in formulating the themes for the awarding of the Chairs:

- A long and healthy life for all South Africans;
- Vibrant, equitable, sustainable rural communities and food security for all;
- Protection and enhancement of environmental assets and natural resources;
- An efficient, competitive and responsive economic infrastructure;
- Sustainable human settlements and improved quality of households;
- Skilled and capable workforce to support inclusive growth;
- Quality education; and
- All people in South Africa are, and feel, safe.

The proposed themes are also informed by the need to strategically grow specific research areas as well as the absorptive capacity of individual universities and

the university system generally. Thus the themes listed below are proposed for Chairs to be awarded in this Call.

Research Discipline	Number of Chairs
<i>South African Research Chairs</i>	
Climate Change and Energy Policy	1
Global Change Social Learning Systems	1
Indigenous Knowledge Systems	1
Industrial Biotechnology for Transformative Biomass Valorisation (in partnership with the Sugar Milling Industry)	1
Sanitary and Phytosanitary Risk Analysis (in partnership with the Animal Health Cluster)	1
Open categories	15
<i>SA-UK Bilateral Research Chairs</i>	
Food Security, Energy and Water	3

The indicated number of Research Chairs to be awarded in each research theme is intended to guide the awarding of the Research Chairs to areas where there is a strategic need to develop research and innovation capacity and human capital. However, a degree of flexibility will be exercised, within the thematic research areas, in the awarding of the Research Chairs.

2.2 Application, Review and Selection Process

A Research Chair will be awarded in an open and competitive process. The application and selection process will be conducted in a one-phase process, which will include, (i) *the motivation by the South African public university to host the Research Chair*; (ii) *the nomination of a candidate for appointment to the Chair position*; (iii) *a research and activity plan drafted by the nominated candidate*.

Applications will be assessed in a two-tier peer review process, namely postal review and panel review. The application and selection processes will be carried out by the NRF and all review committee meetings will be convened by the NRF using video conferencing where necessary.

The NRF will open a Call for Applications for South African universities and interested universities may identify suitable candidate(s) through an international advertisement and headhunting process. Each university will be permitted to nominate up to three candidates, who must submit a separate full proposals.

The application must be authored by the nominated candidate in consultation with the university Deputy Vice Chancellor responsible for Research. Experts in the specific thematic areas, will undertake assessment of applications and make funding recommendations for approval and award by the NRF. This assessment will focus on the the motivation by the university to host the Research Chair; the nomination of a candidate for appointment to the Chair position; and a research and activity plan, the application should give details on:

- (i) the readiness and commitment of the institution to provide an enabling environment to ensure the success of the Research Chair;
- (ii) strengths, capabilities, strategic environment and competencies of the university;
- (iii) the alignment of the proposed Research Chair with the proposed thematic areas and the university research strategy;
- (iv) the potential of the proposed Research Chair to enhance the international research and/or innovation competitiveness within the discipline;
- (v) The potential of the research to impact on social and/or economic development of the country;
- (vi) the research focus of the Research Chair;

- (vii) a proposed plan on how the Research Chair will fulfill SARChI objectives, including the strategic considerations mentioned in the university proposal; how it will deliver on the university research strategy; and
- (viii) specific objectives, outputs and outcomes for the five-year period.

More information on selection criteria is given in **Section 2.3**. The full application must also include the biography of the candidate(s), who will have, in principle² accepted the nomination for the Research Chair by the university. The recommended candidate(s) must use the NRF Online Submission System (<https://nrfs submission.nrf.ac.za/nrfmkii/>) to register and/or update her/his *curriculum vitae* and complete the application.

As awards of SARChI Research Chairs are to be made to the host university the application by the proposed candidate has to be supported through the electronic application process. The support must be made by the Deputy Vice-Chancellor responsible for research at the university. Each university must submit the following documentation to be considered as a host university for Research Chairs, through the online application:

- University Research Strategy;
- PQM approved by the Department of Higher Education and Training;
- Details of current academic and research staff of the university in the specific discipline; and
- Statistics on university research outputs and postgraduate students trained and graduated for the period 2010 to 2014, in the specific discipline.

² No commitment should be given to the candidate(s) by the university before the NRF has officially informed the university of the Award by means of an award letter.

Each university may submit only applications for up to five thematic, open and UK bilateral Research Chairs. Applications should be submitted not later than **31 March 2015**, on the NRF Online Submission System (<https://nrfs submission.nrf.ac.za/nrfmkii/>), by the DVC responsible for Research and validated by the relevant Designated Authority (DA). Only submissions that provide all the requested information will be eligible and considered for review. Following a competitive review process, led by experts in the selected discipline, the Research Chairs will be awarded to the successful universities for appointment of the candidate.

2.3 Selection Criteria

Application to host the Research Chair by university

The selection of the applications will be based on (i) the readiness and suitability of the university to host the proposed Research Chair, (ii) the strategic alignment of the proposed Research Chair, (iii) the motivation by the South African public university to host the Research Chair; (iv) the nomination of a candidate for appointment to the Chair position; (v) a research and activity plan drafted by the nominated candidate.

The application must therefore address the following:

- The alignment of the proposed Research Chair with the university's research strategy and PQM;
- Alignment of the proposed Research Chair's focus with that of existing research activities or capacity;
- University commitment for creating an enabling environment with regard to:
 - Office and/or laboratory space.
 - Infrastructure (equipment, IT facilities, etc.);
 - Academic support (information, resource facilities and related research groups);
 - Management and leadership; and

- Financial support (direct and indirect);
- The reporting lines and location of the Research Chair within the university structure.

The selection of candidates will be based on the merits of each candidate’s full research proposal. This will include the strength of the candidate’s profile, including her/his qualifications and experience, publishing in the discipline of the Research Chair and postgraduate student training track records. This will also include an assessment of the candidate’s research and activity plan in respect of its ability to deliver on SARChI objectives, as well as a proposed budget (see Section 3.3. Funding Levels).

The full proposal must also give specific details on:

- The proposed teaching³ to research time ratio;
- Research objectives for the five year period;
- Expected knowledge⁴ outputs in the first five year period;
- Expected human capital⁵ outputs in the first five year period;
- Existing and planned collaborations in the first five-year period.

2.4 Call timelines

The key activities and timelines, to ensure effective implementation by the NRF and the universities, are outlined in Table 3 below.

Table 2: Research Chair Call activities and timelines

Activities	Timelines
Application to host the Research Chair by university and Awarding of the	

³ Teaching of postgraduate students only. Note: Chairholders may not spend more than 20% of their time on undergraduate teaching and/or management responsibilities not related to activities of the Research Chair.

⁴ Peer-reviewed journal articles, peer-reviewed conference proceedings, scholarly books and book chapters, patents, invited keynote presentations, conference presentations etc.

⁵ Numbers of Masters and Doctoral graduates and completed postdoctoral fellowships.

Research Chair and approval of nominated candidate and full proposal	
1. NRF Briefing Meeting for University Deputy Vice-Chancellors	02 - 14 February 2015
2. Call opens for applications	03 February 2015
3. Call closes for applications	31 March 2015
4. Postal reviews	April – May 2015
5. Panel review meetings	May – June 2015
6. Review outcome letter sent to Deputy Vice-Chancellors	July 2015
7. Feedback letter sent to Deputy Vice-Chancellors	July 2015

3. Management of the Research Chairs

This section of the Framework and Funding Guide for Applications describes what follows after the Research Chair has been awarded to the university.

3.1 Duration of the Research Chair

Tier 1 Research Chairs will be tenable for five years, renewable for two further five-year periods giving a total life lifespan of 15 years. Tier 2 Research Chairs will be tenable for five years, renewable for a further five-year period giving a total life span of 10 years. Eligibility for renewal will be entirely performance-linked and Tier 2 Chairs may be upgraded to a Tier 1 Chair after the first or second five-year funding period based on the recommendations of a five-year term review.

3.2 Management of Research Chairs

The management of SARChI grants is illustrated in **Figure 1** and described below.

On accepting the award and signing the *Conditions of Grant*, the newly appointed incumbent of the Research Chair will be required to deliver on the research activity plan that formed part of the accepted full proposal. At the end of each

financial year the incumbent will be required to submit to the NRF an annual progress report addressing milestones and expected outcomes presented in the research activity plan.

During year five of the five-year funding cycle, the Research Chair will be subjected to an in depth evaluation undertaken by peers following the framework set out in the *SARChI Monitoring and Evaluation Framework*.

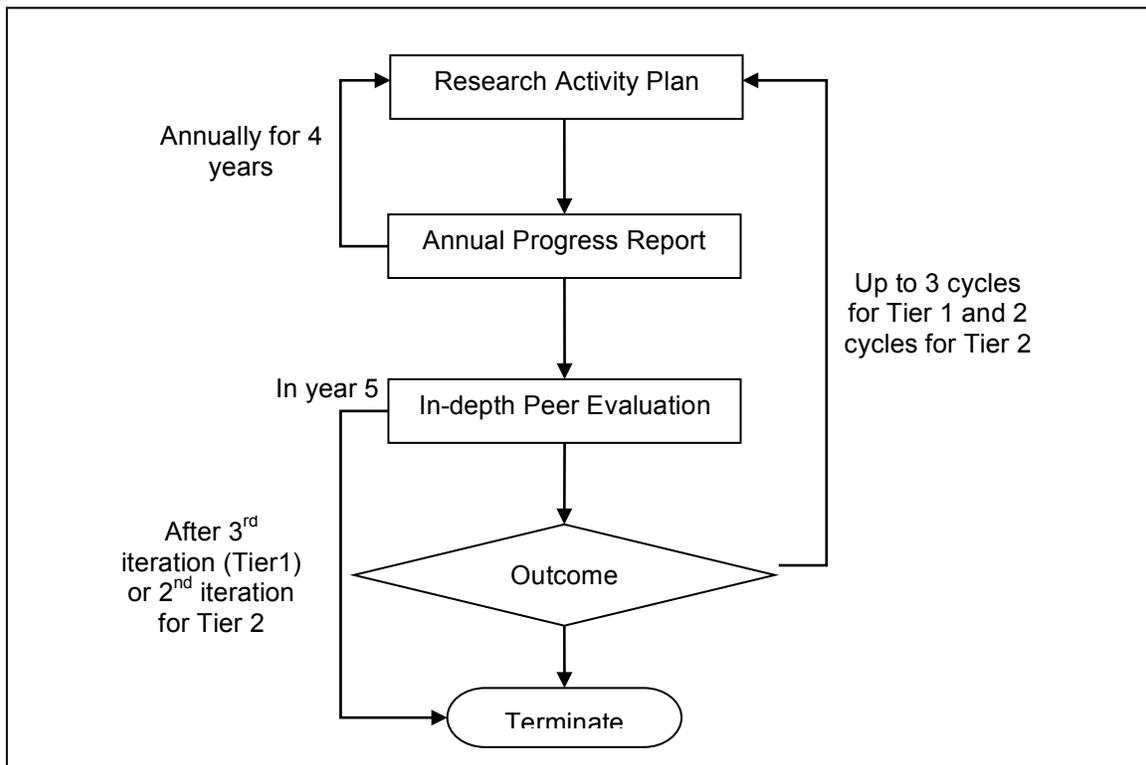


Figure 1: Management of Research Chairs over the tenure of the Research Chair

3.3 Funding Levels

SARChI proposes to make an award of up to R2,5 million and R1,5 million per annum per Tier 1 and Tier 2 Research Chairs, respectively. This award will cover salaries⁶, postdoctoral fellowships and postgraduate student bursaries, research operating costs and research equipment and infrastructure. The guidelines for

⁶ Salaries of the incumbent and limited administrative support

apportioning of the grant across these categories and the values of fellowships and scholarships are shown in Table 3.

Table 3: Guidelines for SARChI grant annual budget breakdown for Tier 1 and Tier 2 Research Chairs

Budget category	Sub-item	Cost pa	Minimum number of people	Maximum number of people
Salaries	Chair	550 000 to 700 000	1	1
	Admin support	30 000		1
	Research assistants	30 000		3
Fellowships	Postdoctoral fellows	200 000	1	
Bursaries	Doctoral (full time)	100 000	2	
	Masters (full time)	70 000	2	
	Honours	40 000	4	4
Research equipment or infrastructure	Up to R400 000	400 000		
Running	Up to 30% of budget			
University Overheads	Up to 10% of budget			

It is important to note that this budget template provides a guide that stipulates the minimum and maximum amounts per budget category and has the flexibility for the Chair to allocate the SARChI grant based on the research activity plan. The proposed budget will be approved at the commencement of each five-year funding cycle. The incumbent will be given an opportunity, at the end of each calendar year, to make budget adjustments for the subsequent year, in consultation with the Directors of Research Chairs & Centres of Excellence and Grants Management and Systems Administration directorates.

Tier 1 Research Chairs will not be eligible for additional NRF parliamentary core grant funding, except in respect of Rated Researchers Incentive Funding. Incumbents must apply for grants for large equipment through the NRF Infrastructure Funding Instrument.

Chairs are expected to dedicate at least 80% of their time conducting research and supervising an average of 10 Masters and Doctoral students per annum. The Chairs are therefore strongly encouraged to attract additional funding for research and human capital development from other national and international funders and donors to supplement the SARChI grant.

3.4 Payment of Grants

The grant for year 1 of 5 for the awarded Research Chair will be fully disbursed to the university upon receiving the signed copy of the NRF '*Conditions of Grant*' by the incumbent. Grants will thereafter be disbursed to the universities on an annual basis, for the approved funding period, subject to the appointed Chair meeting the '*Conditions of Grant*' and submitting an Annual Progress report.

3.5 Evaluation and Impact of Research Chairs

A baseline study of Research Chairs and their institutional and intellectual environments will be conducted with each round of new awards. These studies, together with the universities' Strategic Research Plans and the Research Chair's Research and Activity Plan, will serve as the baseline to evaluate impact on the discipline and at the institutional level.

4. References

South Africa. (1996). White Paper on Science and Technology - '*Preparing for the 21st Century*'. <http://www.dst.gov.za/index.php/legal-statutory/white-papers/361-science-a-technology-white-paper> (Accessed: October 2014)

South Africa. (2002). South Africa's National Research and Development (R&D) Strategy.<http://www.gov.za/documents/index.php?term=national+Research+and+Development+&dfrom=&dto=&subjs%5B%5D=0> (Accessed: October 2014)

South Africa. (2009). Human Resource Development Strategy for South Africa (HRDS).<http://www.gov.za/documents/index.php?term=Human+Resource+Development+Strategy+for+South+Africa+&dfrom=&dto=&subjs%5B%5D=0> (October 2014)

South Africa. (2009). Medium Term Strategic Framework (MTSF).
<http://www.gov.za/documents/index.php?term=Medium+Term+Strategic+Framework+&dfrom=&dto=&subjs%5B%5D=0> (Accessed: October 2014)

5. NRF contact persons

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