



science & innovation

Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA



Funding Instrument:

South African Research Chairs Initiative (SARChI)

Domain:

Research Chairs & Centres of Excellence (RCCE)

Document:

Framework & Funding Guide for DSI-NRF/ Swiss Bilateral Chair in Blockchain Technology

Updated: 10 May 2022

Swiss TPH



Swiss National
Science Foundation



Schweizerische Eidgenossenschaft
Confédération suisse
Confederazione Svizzera
Confederaziun svizra

Table of Contents

1. Introduction	3
2. Strategic Background	4
2.1. Context	4
2.1.1. Call for Applications	5
2.2. SARChI Aim and Objectives	5
3. SARChI Guiding Principles	6
4. Profile and Minimum Requirements	7
4.1. Minimum Requirements for the DSI-NRF/ Swiss Bilateral SARChI Applicant	8
5. Details of the DSI-NRF-Swiss Bilateral Chair in Blockchain Technology	8
5.1. Additional Requirements	10
6. Application, Review and Selection Process	11
6.1. Application Process	11
6.2. Review and Selection Process for the DSI-NRF/ Swiss Bilateral Research Chair in Blockchain Technology	13
6.3. Award Levels	14
7. Accountability and Management of the Chair	16
8. Funding Levels	17
9. Postgraduate Student Funding Policy	19
10. Evaluation and Impact of Research Chairs	22
11. References	23
12. Contact Persons	24

1. Introduction

The National Research Foundation (NRF) has entered into an agreement with the Swiss Tropical and Public Health Institute (Swiss TPH), delegated by the Swiss National Science Foundation (SNSF) and the State Secretariat for Education, Research and Innovation (SERI), through its Leading House Africa activities, to establish a new Bilateral Research Chair in Blockchain Technology. Blockchain technology provides the opportunity to work on the value chain from innovation and validation to application, thus holding promise to have societal impact. The establishment of this Bilateral Research Chair seeks to explore solutions to the challenges, exploit the potentials of blockchain technology and improve the lives of marginalized populations in low- and middle-income countries. Blockchain technology is transparent and can save businesses time and financial resources. In addition, the technology has transformed sectors like financial, healthcare, education, agriculture and global logistics network, among others. However, further research and development are needed to address challenges of blockchain technology such as substantial energy consumption and the rapid development of new protocols. Thus, the establishment of this Bilateral Research Chair, seeks to optimize research in this area that will ensure realization of the benefits of blockchain technology.

As part of the agreement between NRF and Swiss TPH, **a Research Chair position**, held by both a South African and a Swiss counterpart, is available for applications. The NRF and the Swiss TPH are calling for proposals jointly developed by South African and Swiss candidates from all public universities and science councils in South Africa and Switzerland to host the Research Chair(s) in Blockchain Technology.

This document provides detailed information about the South African Research Chairs Initiative (SARChI) funding instrument, the requirements and the focus areas of the Chair.

2. Strategic Background

2.1. Context

The *White Paper on Science and Technology* (1996) and the *National Research and Development Strategy* (2002) emphasised 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 SARChI Funding Instrument was established in 2006 by the Department of Science and Innovation (DSI). This Funding Instrument is managed by the NRF through a contractual agreement with DSI. It is a strategic intervention of the South African government designed to attract and retain excellence in research and innovation at South African universities, science councils and national research facilities. 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, 257 Research Chairs have been awarded in various disciplines and research fields.

2.1.1. Call for Applications

This is a competitive call to all public universities and research councils from both South Africa and Switzerland. The Call for Blockchain Technology falls under the Bilateral Research Chairs cluster of South Africa. The Chair(s) are held in partnership with another country: in this instance, Switzerland. For Switzerland, this call is a component of the Bilateral Research Cooperation programme through the SERI-mandated Leading House Africa activities.

Aspiring candidates from Switzerland and South Africa will jointly develop and submit a single proposal for funding. The Chair, **tenable at Tier 1 and one period of 5 years** for South African and Swiss candidates respectively, seeks to strengthen collaboration between the two countries by focusing on blockchain technology research.

2.2. SARChI Aim and Objectives

The main aim of SARChI Chairs is to strengthen and improve research and innovation capacity of public universities in order to produce high quality postgraduate students and research outputs. The objectives of the SARChI Funding Instrument 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, economic and transformation imperatives 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.

3. SARChI Guiding Principles

The following principles will inform the awarding of a DSI-NRF/Swiss Bilateral Research Chair:

- Applications for the Bilateral Research Chair call is administered through a joint open call in South Africa for South African universities, and Switzerland for Swiss universities. Each university may nominate in total three candidates: one (1) for each focus area of blockchain technology who may submit an application. While all demographic groups may apply, in South Africa, preference will be given to females and Blacks, in particular African South Africans and Coloured candidates because they are grossly underrepresented in the SARChI Funding Instrument.
- With respect to South African universities, selection shall be in favour of historically disadvantaged universities and universities currently hosting less than 15 Chairs, provided they meet the minimum requirements for this call. This is to ensure equitable distribution of chairs. Nonetheless, all universities are encouraged to apply.

- For South African aspirants, each application for the Research Chair must be in alignment with the university's Programme and Qualification Mix (PQM) approved by the Department of Higher Education and Training.
- The Chair-holder will dedicate at least 80% of their time conducting research and in the process supervising an average of 10 postgraduate students per annum as well as mentoring postdoctoral fellows and/or Emerging Researchers.
- Bilateral Research Chairs are only tenable at Tier 1 for South African candidates. **For Swiss candidates, the Chair is tenable for one period only (5 years)**. Prospective candidates must be established researchers with international recognition for their research contributions and leadership in their respective fields.
- South African candidates appointed without an NRF rating are encouraged and required to get rated within the first funding cycle.
- In keeping with SARChI principle of additionality, if the Research Chair is taken up by a candidate who is a current academic staff member, the respective university must immediately initiate a process to fill the vacated position with a suitably qualified candidate.

4. Profile and Minimum Requirements

The nominated candidate may be a current staff member, new or potential recruits of an institution. Abiding by SARChI principle of additionality, if the Chair is taken up by a candidate who is a current research or academic staff member, the institution must immediately initiate a process to fill the vacated position with a suitably qualified candidate. Below are the minimum requirements for the Bilateral Research Chair in Blockchain Technology.

4.1. Minimum Requirements for the DSI-NRF/ Swiss Bilateral SARChI Applicant

- a) The candidate must have a doctoral qualification in a relevant field
- b) The candidate must be full professor at the time of application.
- c) Persons from industry applying must be appointable as an associate or full professor, and the institution must commit to this appointment during application with an endorsement letter stating clear timelines of when such an appointment will be effected.
- d) Must be an established researcher, recognised internationally in their respective research field.
- e) Must have an extensive research profile, including peer-reviewed journal articles.
- f) Candidates from industry must be recognized leaders in their field with proven track record of innovation(s), patents, policy briefs, products, etc.
- g) Must have an extensive student supervision record and the ability to attract, recruit and train postgraduate students in the field of study that they are applying for, candidates from industry must be able to demonstrate and provide evidence of extensive staff training and development.
- h) Demonstrate ability to sustain the Chair beyond the first funding cycle by guaranteeing third party funding.

5. Details of the DSI-NRF-Swiss Bilateral Chair in Blockchain Technology

Applicants for the Research Chair can submit proposals on three research areas:

a) Financial Sector – Moving towards Digitalization

Blockchain technology has considerable potential for innovation and efficiency gains, both in the financial sector and in other sectors of the economy. It helps financial institutions and governments monitor the exchange of cryptocurrencies, monitors and detects fraudulent trading and compliance violations. By eliminating bureaucratic obstacles and reducing third-party fees, Blockchain can save banks lots of money. Blockchain technology can transform regular financial processes into entirely transparent procedures built on secure and efficient transactions. When utilized correctly, Blockchain can create a fintech ecosystem that can revolutionize finance completely.

b) Health Sector – A Global Move towards Personal Health

Blockchain is roaming health research and medical services. Through blockchain technology, all patient information gathered through DNA tests or medical examinations can anonymously be stored and kept private, thereby protecting so that users' data from theft and identification. Clinical researchers use blockchain technology to identify prime contenders for different trials. Medical professionals are able to diagnose patients quickly and safely, based on a clearer medical history. By securing the data and making it available in real time, Blockchain technology is taking society a big step towards personalized health.

c) Logistic Sector – Facilitating Export Industry

Blockchain technology has infiltrated global trade. The technology is currently being used to better understand supply chains and for tracking goods digitally across international borders in real-time. Blockchain platforms help businesses safely monitor the progress of their shipped goods, house information on drivers

and materials, and manage payments. Blockchain features also enable smart processing and secure document management.

5.1. Additional Requirements

In each research focus area, the Bilateral Chair(s) will:

1. Interact closely with individual professors in Switzerland and South Africa.
2. Be transdisciplinary to contribute towards the Sustainable Development Goals (SDGs).
3. Publish research outputs of high quality in peer-reviewed journals in the field of the Bilateral Research Chair.
4. Lead human-capacity development (e.g. emerging staff mentorship, graduate and postgraduate student outputs, etc.).
5. Explore how technology meets and benefits society.
6. Explore possibilities for joint qualifications between South African and Swiss institutions.
7. Conduct collaborative research with partner institution(s) in South Africa and Switzerland.
8. Develop and implement science engagement and outreach initiatives.
9. Facilitate staff, post-doctoral, and postgraduate student exchanges between Switzerland and South Africa.
10. Investigate the possibility of commercializing the research and innovation outputs.
11. Capitalize on the annual Swiss scholarship opportunities for Doctoral and postdoctoral fellows through the Swiss Government Excellence Scholarships (ESKAS) and other funding instruments.

6. Application, Review and Selection Process

6.1. Application Process

The Research Chair will be awarded via an open call process where applications will consist of two sections: the institutional and individual Chair applicant sections. The application, written in consultation with the Deputy Vice-Chancellor responsible for research, must include: (i) the motivation by the institution to host the Research Chair; (ii) the suitability of a candidate for appointment to the Chair position; (iii) a research and activity plan drafted by the approved candidate; and (iv) a letter of endorsement from the university that the nominated candidate is expected to primarily be affiliated to.

The proposal must be led by the institution with technical aspects authored by the proposed nominated candidate and approved by the institution to submit a proposal for the Chair.

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 institution.
- III. The alignment of the proposed Research Chair with the proposed thematic area and the strategic plan of the institution.
- 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 transformation, the 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 fulfil SARChI objectives, including the strategic considerations mentioned in the proposal.
- VIII. Specific objectives, outputs and outcomes for the five-year period.

As this award of the Research Chair will be made to the institution, for South African candidates, the application by the approved candidate has to be supported through the electronic application process by the Deputy Vice-Chancellor responsible for research. The institution must submit the following documentation to be considered as a host for the Research Chair, through the online application:

- a) Institution's Strategy/Policy/Framework indicating the approach and requirements for research.
- b) Programme and Qualification Mix (PQM) of the affiliated university approved by the Department of Higher Education and Training for universities where the Masters and PhD students are going to be registered.
- c) Details of current academic and research staff of the institution in the specific discipline.
- d) Statistics on the institution's research outputs and postgraduate students (Masters and PhD) trained and graduated for the period from 2015 to 2019, in the specific discipline.

Swiss candidates are required to include as part of their application, a letter of support from their University / Research Institute of affiliation. The letter should clearly state the institute's willingness to:

- provide the necessary working space and avail the institute's infrastructure to the aspiring candidate;
- support the applicant in the management of his/her team and provide administrative assistance to the applicant; and
- guarantee the necessary scientific independence of the applicant, in particular with regards to:

- a. realisation of the project under the scientific guidance of the applicant;
- b. selection and supervision of other team members;
- c. use of the budget to achieve the scientific objectives of the project; and
- d. authority to publish as senior author and to invite as co-authors only those who have contributed substantially to the reported work.

6.2. Review and Selection Process for the DSI-NRF/ Swiss Bilateral Research Chair in Blockchain Technology

Proposals submitted by universities to host the Bilateral Research Chair in Blockchain Technology will be reviewed via a two-tier process, namely; postal peer reviews by subject specific experts with relevant expertise in the research area and panel reviews comprising of individuals from broad disciplines covering these directed areas. The review panels comprising of individuals from broad disciplines will draw on the expert reviewers' written feedback and make recommendations to the NRF and Swiss TPH for the approval of research programmes and plans and on the suitability of the candidate for appointment as a SARChI Chair. Such review panels will be comprised of respected individuals with knowledge and insights of the Higher Education System and the National System of Innovation (NSI) and will consider the recommendations of the review panels and select the Research Chairs to be awarded taking into account the strategic objectives of SARChI and the transformation needs of the sector. For both postal peer and panel review processes, reviewers will be drawn from international pool of experts.

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 his/her qualifications and experience, publications in the discipline of the Research Chair and postgraduate student supervision 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.

The full proposal must also give specific details on:

1. Proposed teaching ¹to research time ratio
2. Research objectives for the five year period
3. Expected knowledge outputs ²in the first five year period
4. Expected human capital ³outputs in the first five year period;
5. Existing and planned collaborations in the first five-year period.

6.3. Award Levels

The Bilateral Research Chair will be awarded at a Tier 1 only. Following the peer review process of the full proposal and the *curriculum vitae* of the candidate, the NRF and Swiss TPH commit to funding and awarding one (1) jointly held Bilateral Chair in Blockchain Technology that will operate at a Tier 1 level. The award Tier levels are explained in the table below:

Table 1: Criteria for the award of SARChI Tier 1 and 2 Research Chairs

Tier 1 Research Chairs	Tier 2 Research Chairs
------------------------	------------------------

¹ Teaching of postgraduate students only. Note: Chair-holders may not spend more than 20% of their time on undergraduate teaching and/or management responsibilities not related to activities of the Research Chair.

² Peer-reviewed journal articles, peer-reviewed research reports, policy briefs, peer-reviewed conference proceedings, scholarly books and book chapters, patents, invited keynote presentations, conference presentations etc.

³ Numbers of Masters and Doctoral graduates and completed postdoctoral fellowships.

<ul style="list-style-type: none">• Should be appointable at the level of a full Professor benchmarked nationally⁴;• 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 successfully 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, specifically African scholars and Black South Africans in the diaspora that are willing to	<ul style="list-style-type: none">• Should be appointable at the level of an Associate Professor or full Professor benchmarked nationally;• Should be an established researcher, 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, specifically African scholars and Black South Africans in the diaspora willing to reside full-
--	--

⁴ Candidates with exceptional industry background will be considered provided the institution can provide evidence that the candidate is appointable as a full professor, and commit to the appointment after the Research Chair is awarded.

spend at least 50% of their time within South Africa are eligible for consideration.	time in South Africa for the duration of the Chair are eligible for consideration.
--	--

An added advantage for a candidate to be nominated/recommended at a Tier 1 level, would be that the candidate must be typically an A or B NRF rated researcher, or have the potential to attain an A or B rating within the first cycle of the Chair award.

7. Accountability and Management of the Chair

The Deputy Vice-Chancellor responsible for research at the South African host university will be directly accountable for the Research Chair. The Chair will fit into the normal management structures of the host institution. After the Research Chair has been awarded to the institution, the NRF will require the approved candidate for the Chair to enter into a 5-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 plan will be reviewed every five years.

Tier 1 Research Chairs are tenable for an initial period of five years, renewable for two further five-year funding cycles giving a total lifespan of 15 years, subject to satisfactory performance by the Chair following each five year in-depth review. Eligibility for renewal will be entirely performance-linked.

At the end of each financial year the incumbent will be required to submit to the NRF a Progress Report (PR) addressing the milestones and expected outcomes

as presented in the research activity plan of the application. During year four/five⁵, 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](#).

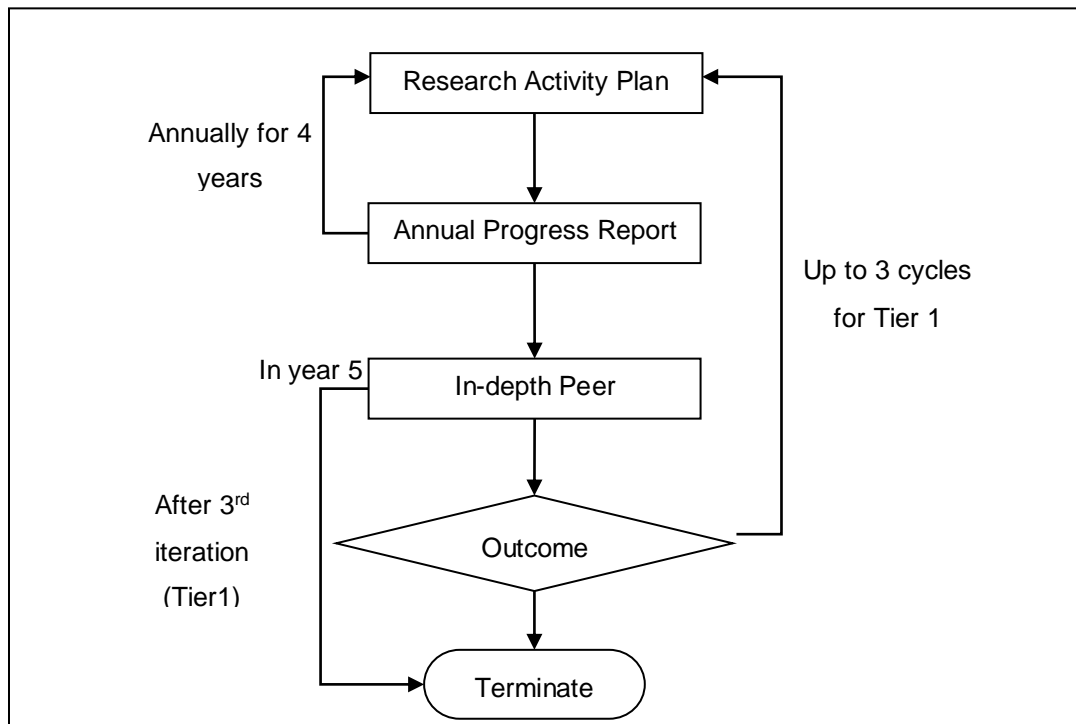


Figure 1: Management of the Research Chair over the tenure of the Research Chair.

8. Funding Levels

The Bilateral SARChI Chair will be funded at R2 180 000 per annum, adjusted annually at CPI, and R500 000 will be set aside annually for postgraduate student

⁵ This depends if the Chair was up taken in either semester 1 or 2.

training. The full cost of the grant per annum for the Bilateral Research Chair in South Africa will be R 2 680 000. The Swiss TPH will fund the professorship on its side by a single installment of CHF 600 000, to cover a maximum period of 5 years and will outline the budget line items with the appointed candidate. The NRF's award will cover salaries⁶, postdoctoral fellowships and research operating costs, research equipment and infrastructure and host institution overheads. The guidelines for apportioning of the grant across these categories and the values of fellowships and scholarships are shown in Table 2.

Table 2: Guidelines for SARChI Budget

Budget category		Sub-item	Cost pa (ZAR)	Minimum number of people	Maximum number of people
Salaries		Chair	700,000 (Tier 1)	1	1
		Admin support	30,000	0	1
		Research assistants (per person)	30,000	0	3
Fellowships ⁷		Postdoctoral fellows (per person awarded pro rata)	200,000	1	Variable
Research equipment or infrastructure		Variable	Up to R400, 000	Not applicable	Not applicable

⁶ Salaries of the incumbent and limited administrative support

⁷ Please note a further R500 000 will be allocated for postgraduate student funding

Running		Variable	Up to 30% of total budget	Not applicable	Not applicable
Overheads		Variable	Up to 10% of total budget	Not applicable	Not applicable

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 Research Chairs and Centres of Excellence Directorate of the NRF.

Tier 1 Chairs will not be eligible for additional NRF parliamentary core grant but incumbents may apply for grants for large equipment through the NRF Infrastructure Funding Instrument.

9. Postgraduate Student Funding Policy

In 2021, the NRF implemented the *DSI-NRF Postgraduate Student Funding Policy* wherein postgraduate funding allocations are underpinned by the principles of equity of opportunity; representivity; prioritisation; and enhanced access, success and throughput. The *DSI-NRF Postgraduate Student Funding Policy* gives effect to the Ministerial guidelines for improving equity in the distribution of DSI-NRF Bursaries and Fellowships (2013). Citizenship, age, gender and disability are considered in the allocation of funding, with transformation of the postgraduate cohort as the core objective. Financial need is included as a criterion for

determining the level of funding. To attract and retain a diverse range of students, funding levels cover the full cost of study for students who meet the required criteria.

The NRF's minimum academic requirements for postgraduate funding are as follows:

- **For first-time honours funding** - A minimum average of 65% for major subjects in the final undergraduate year of study;
- **For first-time master's funding** - A minimum average of 65% for all subjects at the honours level OR a minimum average of 65% for all subjects of a postgraduate diploma OR a minimum average of 65% for all final year subjects of a four-year degree; and
- **For first-time doctoral funding** - A minimum of 65% at the master's level.

South African citizens or permanent resident applicants who have **graduated from 2021 academic year with a classification of Pass will not be allowed to apply in the current call**, only applicants with a numerical pass mark may apply for NRF funding. However the following individuals will be allowed to apply without a numerical mark:

- South African citizens or permanent residents who graduated prior to 2021 academic year with a 'Pass' and 'Pass with a distinction'. Applicants with a 'Pass' should enter the 'Pass' under the academic achievement section of the application form, and those with 'Pass with a distinction' should enter 75%;
- South African citizens or permanent residents with a 'Pass with distinction'. These applicants should enter 75% mark in the application form; and

- International applicants applying for masters and doctoral scholarships.
These applicants should enter a 'Pass' in the application form.

The eligibility criteria for funding at Full Cost of Study (FCS) and Partial Cost of Study (PCS) listed in Table 3 apply to all first-time applicants for honours, master's and doctoral funding.

Table 3: Eligibility criteria for first time applicants for the DSI/NRF Student Funding for FCS and PCS

Study level	Full Cost of Study		Partial Cost of Study
	Exceptional Achievers	Financially Needy and Applicants with a Disability	Other
Honours	Average of $\geq 75\%$ mark for major subjects in the final year of undergraduate study	Average of $\geq 65\%$ mark for major subjects in the final year of undergraduate study	Average of $\geq 65\%$ mark for major subjects in the final year of undergraduate study
	Applicants for honours funding must be 28 years of age or younger in the year of application i.e. applicants must not be over 28 years by 31 December 2022. Only South African citizens and permanent residents are eligible for honours scholarships.		
Master's	Minimum average of 75% for all subjects at the honours level;	Minimum average of 65% for all subjects at the honours level;	Minimum average of 65% for all subjects at the honours level;
	OR Minimum average of 75% for all subjects for a Postgraduate diploma level;	OR Minimum average of 65% for all subjects for a Postgraduate diploma;	OR Minimum average of 65% for all subjects for a Postgraduate diploma;
	OR Minimum average of 75% for final year subjects of a four-year degree	OR Minimum average of 65% for final year subjects of a four-year degree	OR Minimum average of 65% for final year subjects of a four-year degree
Applicants for master's funding must be 30 years of age or younger in the year of application i.e. applicants must not be over 30 years by 31 December 2022.			
Doctoral	Minimum average of 75% for Master's degree	Minimum average of 65% for Master's degree	Minimum average of 65% for Master's degree

	Applicants for doctoral funding must be 32 years of age or younger in the year of application i.e. applicants must not be over 32 years by 31 December 2022.
--	---

Only South African citizens and permanent residents who are either financially needy, living with a disability or exceptional academic achievers are eligible for FCS. Applicants that are eligible for FCS can be awarded at PCS due to budget constraints. The NRF reserves the right not to make an award or adjust a grant under any circumstances from PCS to FCS. The PCS funding will be awarded to South African citizens, permanent residents and 5% of international students.

The entry age requirement is 28, 30 and 32 years for honours, masters and doctoral studies respectively, in the year of application, regardless of first year of registration.

For more information on the DSI/NRF postgraduate student policy, please go onto the NRF online ().

10. 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 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.

11. 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)

University of Stellenbosch (2016). *Logistics Barometer 2016*. [Logistics Barometer \(sun.ac.za\)](http://www.sun.ac.za) (Accessed: February 2021)

12. Contact Persons

NRF (for information regarding the NRF application process and requirements)

- Dr Makobetsa Khati, Executive Director: Research Chairs and Centres of Excellence (phone: 012 481 4022; e-mail: MA.Khati@risa.nrf.ac.za)
- Dr Nana Boaduo, Director: Research Chairs and Centres of Excellence (phone: 012 481 4326; e-mail: NKK.Boaduo@risa.nrf.ac.za)
- Dr Rocky Skeef, Executive Director: Reviews and Evaluation (phone: 012 481 4129); e-mail: Rocky@nrf.ac.za)
- Dr Patrick Nonjola, Director: Reviews and Evaluation (phone: 012 481 4384; e-mail: ptn.nonjola@risa.nrf.ac.za)
- Dr Gugu Moche, Executive Director: Grants Management and Systems Administration (phone: 012-481 4276; email: IO.Moche@risa.nrf.ac.za)
- Mr Simon Lotz, Director: Grants Management and Systems Administration (phone: 012 481 4125; e-mail: SM.Lotz@risa.nrf.ac.za)
- Ms Andisiwe Jukuda, Professional Officer: South African Research Chairs Initiative (phone: 012 481 4113; email: AH.Jukuda@risa.nrf.ac.za).

Swiss TPH (further information and clarification for Swiss applicants)

- Dr Kobina Assan Ampah, Focal Point, Leading House Africa(phone: +41 61 284-8706; email: lhafrica@swisstph.ch)