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NRF Second Call announcement: BRICS Pilot Flagship Projects – Research Grants Category, 2026 – Call 2

Please note that another BRICS Call for Pilot Flagships Projects is now open on NRF Connect under the Research Grants category.

UFS internal closing date: 14 June 2026

The BRICS STI Framework Programme special actions research funding organisations from the BRICS countries have agreed to jointly establish a new call for flagship projects, namely the BRICS STI Framework Programme Pilot STI Flagship Projects Call 2026.

Aim:
The BRICS STI Flagship Projects are mission-driven initiatives that tackle global and shared challenges faced by BRICS countries. They aim to create significant technological, scientific, and societal impact by promoting integrated system solutions across value chains. These projects support long-term growth, strengthen science, technology, and innovation sectors, and develop model solutions to key societal challenges. These collaborative research projects should be interdisciplinary in scope, led by accomplished scientists (and related personnel) from BRICS countries, preferably with a track record of generating high-impact results.

The following three thematic topics are covered by this call:

1. **Digital Earth**

The Digital Earth flagship project aims to strengthen long-term collaboration among BRICS countries to improve the prediction and management of weather and climate extremes using advanced Earth-system digital twins. By combining physics-based forecasting models with artificial intelligence, the project seeks to enhance forecasting accuracy for disasters such as floods, droughts, wildfires, poor air quality, and extreme weather, particularly in major BRICS megacities.
The initiative promotes a federated approach where countries share data, expertise, software, and technologies through common R&D ecosystems, allowing each nation to benefit from complementary strengths. It also integrates environmental and socio-economic models to better understand the impacts of climate events on society and infrastructure. Expected outcomes include improved disaster warning systems, stronger urban resilience, better support for governments and stakeholders, new research infrastructure, and economic benefits from tailored forecasting services. The project also emphasises training scientists and forecasters to build national capacity in advanced AI-driven environmental prediction technologies.

2. **Psycho-Molecular Tools**

The Psycho-Molecular Tools flagship project focuses on addressing the growing mental and cognitive health challenges across BRICS nations caused by stress, aging populations, socio-economic pressures, and rapid technological change. The project aims to develop scalable and sustainable tools for objective assessment and continuous monitoring of mental health.

The initiative combines molecular and biochemical markers with behavioural data and AI-enhanced analytics to improve early detection, diagnosis, and treatment of psychiatric and cognitive disorders. It promotes harmonised data collection, shared research protocols, and open exchange of methods, software, and expertise among BRICS countries.

By leveraging complementary national strengths and collaborative research ecosystems, the project seeks to accelerate innovation in psycho-molecular technologies, strengthen predictive mental-health systems, and improve health-care outcomes across BRICS member states.

3. **BRICS Intelligent Telescope and Data Network**

The BRICS Intelligent Telescope and Data Network project aims to establish a collaborative network of astronomical telescopes and intelligent data infrastructure across BRICS countries to advance modern astrophysics research. The initiative will connect existing and future telescopes, computing facilities, and multi-wavelength observation systems to support large-scale sky surveys and the study of transient cosmic events.

A key focus is addressing major big data and high-performance computing challenges associated with global astronomy projects such as the Square Kilometre Array (SKA) and the Rubin Observatory's Legacy Survey of Space and Time (LSST). The project also plans to develop a globally distributed optical telescope network capable of near-continuous sky monitoring.

Beyond scientific discovery, the initiative is expected to drive innovation in instrumentation, data science, and Fourth Industrial Revolution technologies. It promotes collaboration between academia and industry while developing a new generation of data-literate scientists and engineers through training and cross-disciplinary partnerships.

Financial Support:

The total amount requested from the NRF should not exceed R1 500 000 per project. Funding will be made available for a maximum of three years, to be paid in annual instalments (R500 000 per project per year), and exclusively for research activities commencing mid-2027.

Duration of the collaborative projects:

Projects will be supported for a maximum period of three years (2027 to 2029).

Please consult the attached framework and annex for further information on the eligibility criteria, application procedure, and budget requirements.

For more information and assistance with proposal writing, please contact:

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Also access

- South Africa NRF National Annex: BRICS Flagship Pilot
- BRICS STI flagship project call 2026