



**МИНИСТЕРСТВО НАУКИ И ВЫСШЕГО ОБРАЗОВАНИЯ
РОССИЙСКОЙ ФЕДЕРАЦИИ**

(МИНОБРНАУКИ РОССИИ)

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26.05.2023 № МН-12/1316 Руководителям научных
и образовательных организаций,
На № _____ от _____ подведомственных Минобрнауки России

Об участии в восьмом Форуме
молодых ученых стран БРИКС

Департамент международного сотрудничества Минобрнауки России информирует о проведении конкурсного отбора на участие в **восьмом Форуме молодых ученых стран БРИКС** (далее – Форум). Форум молодых ученых стран БРИКС проводится с 2016 года на ежегодной основе страной-председателем межгосударственного объединения БРИКС.

Форум представляет собой уникальную коммуникационную площадку талантливой молодежи стран БРИКС для обмена опытом, расширения сети профессиональных знакомств и возможности проведения совместных исследований.

В 2023 году Форум пройдет с 31 июля по 2 августа в ЮАР (г. Гкеберха) в **очном формате** под девизом: «БРИКС и Африка: партнерство ради взаимного ускорения роста, устойчивого развития и всеохватной многосторонности». Рабочий язык мероприятия – английский.

Участники Форума будут презентовать информацию о своих научных достижениях в ходе тематических сессий по трем направлениям «Изменение климата и экологическая устойчивость», «Будущее образования, мышления и навыков» и «Будущее общества».

В рамках Форума также состоится **шестой Конкурс «Молодые инноваторы стран БРИКС»** (далее – Конкурс). Целью Конкурса является поощрение перспективных молодых исследователей из стран БРИКС за новаторские инициативы в таких четырех областях, как «Модернизация

производства», «Модернизация сельского хозяйства», «Модернизации горнодобывающей промышленности» и «Циркулярная экономика».

Призовой фонд Конкурса составляет 50 тыс. долл. США. Главный победитель за первое место получит вознаграждение в размере 25 тыс. долл. США, за второе место предусмотрено вознаграждение в размере 15 тыс. долл. США и 10 тыс. долл. США за третье место.

От каждой страны БРИКС ожидается 26 участников, из них – по 7 молодых ученых (до 40 лет с ученой степенью) по каждому из перечисленных выше трех тематических направлений Форума, 4 молодых инноватора (до 40 лет) с проектами по тематическим направлениям Конкурса и 1 экспертный член жюри указанного Конкурса.

В случае заинтересованности **в срок до 23 июня 2023 года** необходимо представить в адрес Кутузовой Альбины Альбертовны kutuzovaaa@minobrnauki.gov.ru данные потенциальных кандидатов из числа:

молодых ученых (заполненная анкета по прилагаемой форме (на английском языке), фотография, копия основной страницы заграничного паспорта, а также краткая биография номинанта (на русском и английском языках) и рекомендательное письмо (на русском языке), подписанное руководством организации, с обязательным указанием тематического направления Форума, по которому подается заявка;

молодых инноваторов (заполненная анкета по прилагаемой форме (на английском языке), фотография, копия основной страницы заграничного паспорта, а также краткая биография номинанта (на русском и английском языках) и рекомендательное письмо (на русском языке), подписанное руководством организации, с обязательным указанием тематического направления Конкурса, по которому подается заявка. Кроме того, необходимо приложить информационные материалы об инновационном проекте (на английском и русском языках);

экспертного члена жюри Конкурса (резюме с фотографией кандидата (на английском и русском языках), а также рекомендательное письмо, подписанное руководством организации (на русском языке).

При определении кандидатов от организации просим в первую очередь руководствоваться принципами объективной оценки накопленного научного опыта, уровня квалификации предполагаемых участников и продвинутого знания английского языка.

Согласно регламенту Форума проживание, питание и внутреннее передвижение во время проведения мероприятия будут обеспечены организаторами Форума – южноафриканской стороной. Расходы, связанные с медицинской страховкой и авиабилетами к месту проведения Форума покрываются командирующей стороной (научной или образовательной организацией, от которой направляется молодой ученый и/или инноватор).

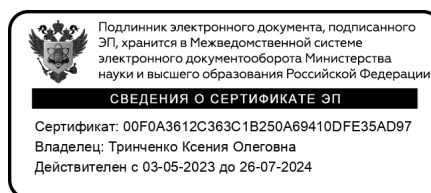
Обращаем внимание, что для граждан Российской Федерации въезд в Южно-Африканскую Республику на срок до 90 дней – безвизовый.

Подробнее об условиях и правилах участия можно ознакомиться в прилагаемых материалах. Анкеты для заполнения доступны по ссылке: <https://clck.ru/34XE4Z>

Приложение: на 32 л. в 1 экз.

С уважением,

Директор Департамента
международного сотрудничества



К.О. Тринченко



ADMINISTRATIVE NOTE

8th BRICS Young Scientists Forum and 6th Young Innovator Prize.

***Building BRICS and Africa Partnership for Mutually Accelerated Growth,
Sustainable Development, and Inclusive Multilateralism***

31 July to 3 August 2023

Qheberha, Eastern Cape

Released by the Department of Science and Innovation of South Africa



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1. INTRODUCTION

In line with the hosting of previous BRICS chairships, South Africa will host the 8th BRICS Young Scientist Forum and the 6th BRICS Young Innovator Prize from 31 July to 4 August 2023 in person. Both events will take place in **Qheberha (formally named, Port Elizabeth), in the Eastern Cape Province of South Africa at the Boardwalk Hotel, and Conference Centre.**

This administrative note contains general logistical information on the events, and administrative procedures for travelling and participating in the events.

2. DETAILS OF VENUE

Both the 8th BRICS Young Scientists Forum and the 6th BRICS Young BRICS Innovator Prize will all take place at the **Boardwalk Hotel, and Conference Centre in Qheberha.**

The Boardwalk Hotel, and Conference Centre offers premier luxury hotel accommodation only a few minutes away from the Blue Flag awarded Hobie Beach. Not only popular for its premier luxury accommodation, the Boardwalk hotel and Conference Centre is also a unique entertainment, dining, and conference venue.

Phone: +27 41 507 7777

Address: Beach Rd, Summerstrand, Qheberha, 6019, South Africa

Website: <https://www.suninternational.com/boardwalk/conferencing/boardwalk-international-convention-centre/>



3. COURTESIES EXTENDED TO PARTICIPANTS

South Africa, as the host will extend the following courtesies:

3.1. Ground transportation

The South African Government will provide communal ground transport from the Port Elizabeth International Airport to Boardwalk Hotel and Convention Centre for all participating delegates from Saturday, 29 July to Sunday, 6 August 2023. The communal transport will **ONLY** be operating from the Airport to the hotel upon arrival and departure. Additional transport may be hired by delegations at their own expense. Rental vehicles are available through well-known rental companies. Delegations requiring additional chauffeur-driven vehicles can arrange this through car hire companies at their own expense.

3.2. Accommodation

The South African Government will provide and pay accommodation for **21 young scientists from each BRICS partner country and four (4) young Innovators (including 1 Jury member) from each BRICS partner country from Sunday 30 July to Thursday, 3 August 2023**, to be accommodated at the Boardwalk Hotel.

4. CITY INFORMATION

Qheberha formally known as Port Elizabeth is nicknamed the “friendly city” and “windy city” and is one of South Africa’s largest cities, situated in the Eastern Cape Province of South Africa, at the end of the Garden Route. It stretches along Algoa Bay and boasts one of the country’s major seaports and is located on the southern coast of South Africa, on the shores of Algoa Bay, midway between Cape Town and Durban and 1058 km from Johannesburg. Visitors can expect blue-flag beaches, historic buildings, and an abundance of water sporting opportunities.

The city is home to Chief Dawid Stuurman International Airport (formally known as Port Elizabeth International Airport)), the only international air access point in the Eastern Cape Province. It is the seat of the Nelson Mandela Bay Municipality which is one of two metropolitan municipalities in the Eastern Cape Province. It incorporates Qheberha, Kariega (formally known as Uitenhage) and Despatch, with their



surrounding agricultural areas, and occupies an area of 1959,02 km². Nelson Mandela Bay serves as a centre for both local and international beach sporting and offers exciting outdoor activities. The city is noted for the genuine warm hospitality of its residents and has for many decades been known as the Friendly City among visitors and holidaymakers.

Qheberha boasts the perfect combination of warm water and protected beaches, complemented by a subtropical climate. Water sports include swimming, scuba diving,



fishing, surfing, windsurfing, and kite boarding. Other worthwhile water activities are sunset cruises and dolphin and whale watching tours from Qheberha harbour. History lovers could enjoy the Donkin Heritage Trail, and the Nelson Mandela Metropolitan Art Museum in St George's Park. Nature lovers could similarly enjoy day trips to Addo Elephant Park (70km), the third largest park in South Africa. It is home to over 500 elephants, black rhino, Cape buffalo, lion, spotted hyena, leopard, Burchell's zebra, and a variety of antelope. Other attractions include St George's Park, Cape Recife Nature Reserve, The Island Nature Reserve, Van Stadens Wildflower Reserve, Groendal Wilderness Area, Kragga Kamma Game Park, and Seaview Lion Park.



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5. AIRPORT

5.1 Chief Dawid Stuurman International Airport

The Chief Dawid Stuurman International Airport (Port Elizabeth International Airport) has earned itself the title of the "ten-minute airport" as it is less than ten minutes' drive to Qheberha. This airport is owned and operated by the Airports Company South Africa who also operates other airports around South Africa. The airport currently handles more than 1,2 million passengers per year and over 60 000 scheduled flights. Flights and Car Rentals are available from the Port Elizabeth Airport including flights from/to **King Shaka International Airport in Durban, Cape Town International Airport in Cape Town and OR Tambo International in Johannesburg.**

The Airport has a central retail area as well as a fully compliant international arrivals and departures terminal to complement upgraded amenities for domestic traffic.



For more information, please visit : <https://www.airports.co.za/airports/Chief-Dawid-Stuurman-international-airport/the-airport/about-port-elizabeth>

5.2 OR Tambo International Airport

Oliver Reginald Tambo International Airport also known as the Johannesburg Airport is the main and biggest international airport in South Africa. It is one of two international airports in the City of Johannesburg with the other being Lanseria Airport. It is the busiest and largest in Africa and is located in the business hub of South Africa catering for both commercial and private travellers. There are a total of six terminals at Johannesburg Airport which are categorized as being International, Domestic or Transit. Information kiosks can be found in both the international and domestic arrival terminals. Johannesburg Airport has 5 domestic lounge offerings and nine international lounges for guests to unwind in away from the bustle of the rest of the airport. OR Tambo International Airport has over 140 retail stores which are open from 6am until 10pm. These times also apply to banks, bureau de change, dry cleaners, pharmacy, and the spa. In additional, the duty-free stores also stock products that are exclusively available only at the airport. It takes approximately 1 hr 45 min to fly from OR Tambo International Airport to Port Elizabeth International Airport in Qheberha.



For more information, please visit www.johannesburg-airport.co.za

Helpdesk: +27 (0) 11 921 6262

Flight Information: +27 (0) 086 727 7888

5.3 Cape Town International Airport

Cape Town International Airport is the 3rd largest airport and Africa's premier international award-winning airport, consistently performing among the best in the world for service in its category. Cape Town Airport has one central terminal building. It connects the north and south terminals, which previously housed international and domestic arrivals and departures separately. The Cape Town International Airport offers the Premier Lounge which offers access to any passenger, regardless of the ticket class or airline. Customers can book in advance and pay per visit or purchase a pre-paid card. It takes approximately 1 hr 10 min to fly from Cape Town International Airport to Port Elizabeth International Airport in Qheberha.

6. PORT OF ENTRY REQUIREMENTS AND CUSTOMS REQUIREMENTS

All delegates arriving in South Africa must hold valid passports. All passports must be valid for at least 30 days beyond the expected date of departure from the Republic and must furthermore have at least five unused visa pages when presented for endorsements. Delegates who require visas are requested to arrange through South African diplomatic or consular missions in their respective countries. All delegates must, after they have collected their entire luggage, proceed to the Customs declaration channels with their personal luggage to make a Customs Declaration to the officers operating the channels. Persons who have nothing to declare, have goods that fall within their duty-free allowances and do not carry any prohibited or restricted goods, commercial goods or goods carried on behalf of another person may proceed to the Green Channel. In all other instances or where a traveller is not sure, the Red Channel should be selected. Please note that all fresh produce, fruit, vegetables, seeds, plants, bulbs, tubers, cut flowers, cuttings of plants, honey, eggs, milk, cheese and all meat products are restricted from importation into South Africa. Should any participant in the Forum wish to import such, arrangements should be made with the South African Department of Agriculture for the importation of such. Payment of Customs Duties and VAT may be made in South African Rand or by means of a credit card.

7. MEDICAL AND HEALTH SERVICES

Delegates are encouraged to obtain medical travel insurance from a reputable organisation, as medical treatment at private facilities in South Africa is expensive, with public facilities also levying charges for services rendered. It is therefore strongly recommended that delegates acquire medical travel insurance when purchasing their flight tickets and to ensure a trouble-free trip should medical treatment be required.

8. GENERAL INFORMATION

8.1. Banking Services and Currency

Foreign exchange facilities are available through Bureau de Change facilities on weekdays from 09:00 to 15:30 and on Saturdays from 08:30 to 11:00. Most internationally recognised currencies and travellers' cheques can be exchanged at commercial banks, hotels, and international airports. The unit of currency is the Rand (ZAR). Exchange rates are subject to fluctuation.

Besides airports, there are some banks to exchange money in Boardwalk Mall within a walking distance from the official hotel. MasterCard, Maestro, Visa and Visa Electron are accepted everywhere. American Express and Diners Club are also accepted in some places.

8.2. Weather and Time

The average temperature in Qheberha in August is approximately 19°C during the day and 7°C at night. The time in South Africa is GMT +2.

8.3. Business and shopping hours

Offices and businesses are generally open from 08:00 to 17:00, Monday to Friday. Shopping hours vary but most shops are open from 09:00 to 17:00 Monday to Friday and from 09:00 to 13:00 on Saturdays. Some shops are open on Sundays between 09:00 hours to 13:00.

8.4. Safety and useful numbers

As always, travellers should take a few basic precautions to ensure a safe and pleasant visit:

- Never leave personal property unattended
- Store valuables in your hotel's safety deposit box
- Keep your hotel room locked.
- E-hailing transport services such as Uber, Taxify, Bolt etc, are available and can be booked using their app at any time.
- Avoid displaying expensive jewellery and cameras.
- Do not carry large sums of money on your person.
- Stay away from dark, isolated areas.

For Emergency response dial 10111 and for medical emergencies dial medical: 10177.

8.5. Working language

The work language of the meetings will be **English**. Should your delegation decide to speak in a language other than English, it is kindly requested that we are informed before or by 15 July 2023 and bring own interpreters at own cost, who will work between English and their national languages. In this case, simultaneous translation booths and headphones will be provided by South Africa as the host.

8.6. Dress Code

Smart casual attire is recommended for all sessions and formal wear for the formal dinner.

8.7. Dietary restrictions

Delegations are kindly requested to provide information on dietary restrictions of all delegates until 15 July 2023.

8.8. Computer Set-up

Internet access – via Wi-Fi – will be provided during all meetings. The hotel also provides Wi-Fi connection for guests inside their rooms.

8.9. Electricity

In South Africa power is provided at **220V** and the **plug standard is a 3pin model**, according to the image below. We recommend bringing an international adapter.



9. REGISTRATION AND ACCREDITATION

For ease of logistical arrangements, the names, passport information (including a copy of the front page), photograph, arrival and departure dates and time as well as a short biography of not more than 120 words for all nominated delegates should be sent by e-mail to Mr Kagiso Moloto at Kagiso.Moloto@dst.gov.za no later than 15 July 2023 in the format illustrated as in the table shown below.

Title	Name	Surname	Passport number	Arrival Date	Departure Date	Email address	ID Photo

Each participant will obtain an ID badge at the BRICS Young Scientist Forum and Young Innovator Prize 2023 Information Desk located at the meeting venue prior to the meetings. To obtain badges the participants must provide a photo ID, passport, or a diplomatic identity card. Access to the meeting venue will be allowed only to the participants displaying their ID badges. All delegates will be requested to wear their ID badges visibly always.

10. CONTACT INFORMATION

Each delegation will be assigned a Liaison Person (LP) who will serve as a point of contact for delegates before and during the meeting on issues related to logistics and administration. Please direct the enquiries to the appropriate e-mail address as follows:

- **Documentation submission**

Mr Kagiso Moloto, e-mail: Kagiso.Moloto@dst.gov.za

- **Visa application enquires**

Mr Kagiso Moloto, e-mail: Kagiso.Moloto@dst.gov.za

- **Registration**

Ms Kediemetse Mnisi email: kediemetse.mnisi@dst.gov.za

- **Accommodation and transportation**

Ms Miranda Mohapi: Mirranda.Mohapi@dst.gov.za; and

Ms Johannah Moima e-mail & Johannah.Moima@dst.gov.za



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8th BRICS Young Scientist Forum Announcement and Call for Abstracts

Hosted by the
Department of Science and Innovation (DSI), South Africa

Date: 31 July-3 August 2023

**Theme: Building BRICS and Africa Partnership for Mutually
Accelerated Growth, Sustainable Development and
Inclusive Multilateralism**

Venue: Qheberha, Eastern Cape, South Africa

1. Background

The decision to establish the BRICS (Brazil, Russia, India, China and South Africa) Young Scientist Forum (YSF) was taken at the 2nd BRICS Science, Technology and Innovation (STI) Ministerial Meeting in Brazil in March 2015. The 1st BRICS YSF was held in Bangalore, India in September 2016. At the 4th BRICS STI Ministerial Meeting in Jaipur, India in October 2016, the BRICS countries agreed to hold the BRICS YSF on a rotational basis. The 2nd BRICS YSF was held in Hangzhou, China in July 2017. The 3rd forum was held in Durban, South Africa in June 2018. Moreover, the 4th BRICS YSF was held in Rio de Janeiro, Brazil in 2019. The 5th forum was held virtually during the COVID 19 pandemic in Chelyabinsk, Russia in September 2020. The 6th BRICS YSF was hosted virtually by India in September 2021. The 2022 7th BRICS YSF (in a hybrid format) was hosted in August in Xiamen, China.

South Africa assumed the BRICS rotational Presidency on 1 January 2023 and will host the 15th BRICS Summit in August 2023. In line with the established tradition of previous BRICS Summits, South Africa will host a wide range of BRICS activities leading up to and following the Summit, including the BRICS STI Ministerial Meeting and the BRICS Academies of Sciences meetings.

As part of its BRICS STI activities, South Africa will host the 8th BRICS YSF in line with the decision taken at the BRICS STI Ministerial Meeting held in October 2016, in Jaipur. The main goals of the 8th BRICS YSF are:

- To provide a platform for talented BRICS young scientists and researchers to exchange perspectives on transformative change and forge sustainable research partnerships, links and networks;
- To promote youth driven creative solutions to the most pressing socio-economic problems in their societies;
- To promote scientific cooperation/science diplomacy dialogues amongst the BRICS emerging researchers and countries beyond the summit; and
- To promote the interconnectedness of society through research and innovation for inclusive and sustainable development.

2. Conference Sub-Themes

The 8th BRICS YSF under the theme “**BRICS and Africa Partnership for Mutually Accelerated Growth, Sustainable Development and Inclusive Multilateralism**” will highlight the strategic importance of science, technology, and innovation (STI) as key drivers to attain environmental sustainability, solutions to societal challenges and youths’ transition to leadership. The thematic discussions will focus on the below sub-themes and specifically address the related issues as follows:

- **Climate change and environmental sustainability:**

The specific sub-themes are: (i) Monitoring and modelling earth systems, (ii) Preparedness for extreme environmental events, (iii) Developing technologies for reducing carbon footprint in energy and transport systems, (iv) organic or inorganic waste management to produce new products as demonstration of circular economy.

- **The future of education, mindset, and skillset:**

The specific sub-themes are: (i) Applications for emerging and converging technologies (e.g., integration of multiple technologies within applications, nanotechnology, biotechnology, new applications of “old” technologies/old technology for a new purpose [e.g.; photosensitive film discovered in 1880s now used for data storage applications]), (ii) Emerging educational tools to overcome localised socio-economic barriers (e.g., remote learning, artificial intelligence-based tools [e.g. ChatGPT, ChatSonic], learning analytics, robotics support) (iii)

entrepreneurial mindset to navigate the everchanging future (e.g., emerging commercial markets, the evolution of trade platforms, emerging blockchain opportunities)

- **The future of society:**

The specific sub-themes are: (i) smart society through Artificial Intelligence (e.g., AI applications in public services such as resource allocation, transport, housing, and electricity) (ii) science, technology and innovation to address security issues, e.g., implementation of new STI outputs/approaches in primary health care, food production, emergency/disaster preparedness and cyber security); (iii) interconnectedness of society (science diplomacy role, social upliftment through community of practice, society and culture)

3. Eligibility

This call is open to early career researchers who are under the age of forty (40)

- Not have attended a previous BRICS Young Scientist Forum
- Be in possession of at least a Master's degree
- Have research interests in the thematic areas listed
- Commit to be present for the duration of the conference
- Submit an abstract that will be the basis for a presentation at the conference

Note: In addition to the abstract, do submit a short motivation (1 page at most). The chosen presenters are asked to not simply focus on their research or thesis but should engage with the topic and answer its requirements. Presentations that provide possible recommendations are preferable and address the BRICS countries. The meeting format is a Forum which is a discussion group, where ideas related to a subject 'under discussion' can be raised and evaluated on a (more-or-less) equal and informal basis.

4. Call for Abstracts

Abstract Format and Submission (amended for national requirements)

The abstracts should follow the following format:

- Abstract must not be more than 300 words (excluding Title, Author and Institution) in the attached form
- Abstract must be written in English
- Abstract title must be in boldface, capital letters (lowercase) and centered
- Abstract font must be Century Gothic 11 with A4 set up margins
- Abstract must include the following information:
 - Title, Author(s), Institution(s)
 - Name of first author should be underlined (Please do not underline co-authors)
 - Institutional affiliations, city, province for all authors
 - The superscript numbering must be in front of each initial and surname of each author
- Where appropriate, the text may be structured using the following headings:
 - Introduction or Objectives
 - Discussion
 - Recommendations
 - Conclusion





Concept note for the 6th BRICS Young Innovator Prize

Hosted by the Department of Science and Innovation, South
Africa

Organised by the Technology Innovation Agency, South Africa

***Modernizing the manufacturing, agriculture and mining
industries and the circular economy***

Qheberha, Eastern Cape



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1. BACKGROUND OF BRICS

BRICS is a grouping of emerging markets and developing countries, comprising of Brazil, Russia, India, China, and South Africa and was established in 2008, with South Africa officially joining the grouping in 2010. The Chairship of BRICS follows the sequence of the BRICS acronym. South Africa chaired BRICS in 2013 and 2018 and will again chair BRICS from 1 January 2023.

The BRICS grouping is based on shared values, including the need to restructure the global political, economic, and financial architecture to be more equitable, balanced and representative. BRICS cooperation has grown to include around numerous meetings, at all levels, across the three pillars of political and security, economic and financial, and people-to-people cooperation, contributing to the sustainable development agenda, the development of humanity, and more equitable and fair global governance.

BRICS cooperation provides tangible benefits for all the BRICS partners through science, technology and innovation, energy, health, and education cooperation, as well as through BRICS financing for infrastructure development, capacity building, research, educational and skilling, trade, investment, and tourism opportunities. In the political and security sphere, the BRICS partnership is built on a common commitment to multilateralism and the principles of mutual respect, sovereign equality, inclusiveness, and strengthened collaboration. The BRICS countries continue to work together in seeking to address societal challenges such as inequality, poverty, food security, climate change, health, and education.

2. OVERVIEW OF THE BRICS YOUNG INNOVATOR PRIZE

In line with the established tradition of previous BRICS Chairships, South Africa will host a wide range of BRICS activities in-person leading up to and following the Summit. One of these activities is the 6th BRICS Young Innovator Prize.

The BRICS Young Innovator Prize is a special recognition of young talented entrepreneurs and researchers, whose outstanding innovations (inventions, products, applications, and services) will make a profound impact on the socio-economic,



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environment and condition of life in BRICS societies. The BRICS Young Innovator Prize is a platform for BRICS young scientists and entrepreneurs to share their best practices in innovation and venturing. This initiative was introduced in 2018, during South Africa's BRICS chairship. A total of five instalments of the BRICS Young Innovator Prize has been held successfully and it has become an important stage for BRICS youths to display their innovation talents and strengthen exchanges and cooperation. The winner of the Young Innovator Prize will be granted through contests among the youths from BRICS countries. The upcoming 6th BRICS Young Innovator Prize will be convened in-person as part of the 8th BRICS Young Scientist Forum which will be held from 31 July to 3 August 2023 in Qheberha, Eastern Cape Province of South Africa. All logistical arrangements for the event are captured in the Administrative Note attached in **Annexure A** and the programme is attached in **Annexure B**.

3. THEMES

Science, Technology, and Innovation (STI) have significant transformative potential. For developing countries, STI, and specifically innovation, can support economic growth and employment, create livelihoods at grassroots level, and improve government performance and service delivery. While innovation is not the only factor to foster economic growth, industrialisation, and inclusive development, it remains a significant and vital catalyst.

The main themes of the 6th BRICS Innovator Prize will be based on the following thematic areas:

3.1. Modernising Manufacturing

Production trends in manufacturing are evolving from labour-intensive mechanical processes to more sophisticated high-tech applications and processing. The increased use of technological innovation in manufacturing is considered instrumental in industrialisation, driving higher production performance, and improving manufacturing value addition and productivity. Low innovation levels in manufacturing are one of the factors preventing



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numerous countries from moving to the higher value-added activities needed to boost economic growth. Other high-level problems include an over-reliance on low tech solutions, processing inefficiencies in some industries, limited local market attractiveness, inability to seize new market opportunities, and low levels of locally developed high-tech manufacturing Small, Medium, and Micro Enterprises (SMMEs). As a result of the global move towards a low carbon economy and greener practices, conventional manufacturing industries are expected to meet environmental requirements and lower their carbon footprint. The thematic sub-themes should be in the following: areas -

- **Advanced Electronics:** advanced electronics include devices that provide for the processing of information; sensing, transmission, communication; etc.
- **Mechanisation/Automations:** Mechanisation is normally defined as the replacement of a human task with a machine. Automation involves the entire process, including bringing material to and from the mechanized equipment.
- **Production technologies:** Production technologies refer to all measures and facilities for the industrial production of goods. The basis is the transfer of scientific knowledge into technologically controllable and economically usable production systems.
- **Smart factories:** Smart factories refer to cyber-physical systems that use advanced technologies such as artificial intelligence (AI) and machine learning to analyse data and drive automated processes.
- **Additive manufacturing:** refer to the process of joining materials to make objects from 3D model data, usually layer upon layer, as opposed to subtractive manufacturing methodologies.



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3.2. Modernising Agriculture

Agriculture is a key driver for food security and rural economic development. Challenges in the agricultural sector include the loss of arable land, high input costs (seeds, machinery, and pesticides), low technological innovation, and inadequate advisory services. From a productivity perspective, the challenges of sustainable rural economic growth are exacerbated by the divide between the first and second economies. Global agricultural competition is also fierce and often subsidised. Food safety requirements for exports continue to increase. The thematic sub-themes should be in the following areas -

- **Breeding and Reproduction:** In Biology, breeding refers the process of reproduction, typically plants or animals, to produce offspring. It can only occur between a male and a female plant or animal.
- **Animal Health and Nutrition.** Animal nutrition entails the study of the composition and characteristics of the material consumed by the animal, the way this material is metabolised (converted, utilised, and excreted) in the digestive tract and body cells of monogastric animals (pigs, broilers, layers), ruminants (sheep, cattle, goats), and lower digestive tract fermenters (horses, ostriches).
- **Plant Health and Nutrition:** Plant health and nutrition is a term that considers the interrelationships of mineral elements in the soil or soilless solution necessary for plant growth and reproduction, plant metabolism and their external supply.
- **Post-Harvest Technologies:** Post harvest technologies refer to science and techniques applied to agricultural produce after harvest for its protection, conservation, processing, packaging, distribution, marketing, and utilisation to meet the food and nutritional requirements of the people in relation to their needs.



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3.3. Modernising Mining Industries

Mining has made a significant contribution to the global economy for more than a century. The sector remains extremely important in terms of employment, Gross Domestic Products (GDP), exports, and total fixed investment. Many of the challenges facing the domestic minerals sector over the medium to long term are common worldwide. As mining commodity prices continue to slump, smaller mines face closure and the post-mining rehabilitation and regeneration of mine land therefore becomes critical. The thematic sub-themes should be in the following areas:

- **Automation and digitisation:** Digitising the mining process changes it from a manual, paper-based operation to a digital platform that incorporates siloed systems, automation, AI, etc to streamline operations and significantly improve business outcomes.
- **Mining beneficiation:** Beneficiation, or value-added processing, involves the transformation of a primary material (produced by mining and extraction processes) to a more finished product, which has a higher export sales value.
- **Sustainable mining technologies:** Sustainable mining technologies refers to those techniques that help reduce the negative environmental, social and governance impacts of mining operations, ensuring that the needs of future generations can also be met.
- **Health and Safety:** this refers to the safeguarding of the health and safety of mine employees and communities affected by mining operations.
- **Environmentally responsible technologies:** Environmentally responsible technologies refer to those technologies that will reduce carbon emissions in operations and mitigate adverse environmental impacts.

3.4. Exploiting new sources of growth: The Circular Economy

The Circular Economy approach offers numerous opportunities for socio-economic growth and environmental protection. The approach can contribute to GDP, provide a new source of employment, increase profit margins at firm



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level and maximise resource utilisation efficiency. For developing countries, the Circular Economy can reduce reliance on increasingly scarce raw materials, increase disposable income for individuals, enhance utility and convenience, and improve living conditions and health. Consequently, intensifying the circularity of the economy provides a new model for sustained and resilient economic growth and job creation. The thematic sub-themes should be in the following areas -

- **Developing new technologies.** These new technologies include big data, AI, blockchain and the Internet of things (IoT), amongst others.
- **Reduction of waste.** The Circular Economy is based on three principles namely, the elimination of waste and pollution, the circulation of products and materials and the regeneration of nature.
- **Improved reuse of materials:** The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing, and recycling existing materials and products.
- **Reduction of landfill sites.**
- **Addressing plastic waste.**
- **Net zero:** Net zero refers to the reduction of greenhouse gas emissions to as close to zero as possible. A materials transition that applies Circular Economy principles involves lower impactful ways to produce materials that can help to realise global net-zero goals.

4. TIMELINE AND STRUCTURE OF THE EVENT

4.1. Project solicitation

Only (one) 1 project is recommended for each BRICS country in each thematic area, and no less than (four) 4 projects in total. The recommendation deadline is 30 June 2023. Attached in **Annexure C** is the application form which BRICS Partners may use.



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4.2. 1st round of evaluation

The 1st round of evaluation will be conducted by each BRICS country. In principle, one (1) project in each field will be promoted to participate in the final evaluations during the event.

4.3. Final evaluation

The final evaluation will be held in-person in August 2023 during the BRICS Young Scientists Forum and the presentation of each project is limited to a (ten) 10 minutes pitch. The jury will score all the final projects which will then be ranked in the order of their score. The top (three) 3 highest-scoring projects will be the award-winning projects and other projects will be the merit projects for the BRICS Young Innovator Prize.

5. REQUIREMENTS AND ELIGIBILITY

- 5.1. The Innovations shall focus on the following 4 thematic areas:
 - Modern Manufacturing.
 - Modern Agriculture.
 - Modern Mining; and
 - Circular Economy.
- 5.2. The innovations should emanate from universities, research institutes or innovators who are not yet in the market.
- 5.3. The project must be innovative and has been transformed from scientific and technological achievements.
- 5.4. The innovation should be in a phase of limited product testing, discontinuous production, certification, or preparation of the product for market.
- 5.5. The innovation should not infringe upon the intellectual property of any third party and the Intellectual Property Rights (including patent, standard, thesis, etc.) and must be owned by the project team members.
- 5.6. The age of applicant must be under 40 years and a citizen of any BRICS countries; and
- 5.7. Each applicant can only choose one theme for the awards.



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A BRICS jury that is composed of experts from universities, research institutes, enterprises, investment institutions and other relevant fields in BRICS countries will be established to monitor and enforce the requirements. Each BRICS country will recommend at least one (1) expert to the BRICS jury, the host country will delegate an additional jury member to act as the chair and secretariate.



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technology innovation
A G E N C Y
Innovating Tomorrow Together



**The 8th BRICS Young Scientist
Forum**

South Africa

31 July 2023 – 03 August 2023

**NOMINATION FORM
FOR THE 8th
BRICS YOUNG
SCIENTIST FORUM**

**[..Name of the BRICS
Country..]**

The 8th BRICS Young Scientist Forum

SECTION 1 OF 5 - Nominee Information	
BRICS Country:	
Last Name:	First Name:
Photo (image must be larger than 250*300 pixels):	
Date of Birth (day/month/year):	
Address:	
Telephone:	Email:
Title:	
Institution/Affiliation:	
Field of Research:	
SECTION 2 OF 5 - Nomination Statement (up to 300 words): Please describe how the nominee has demonstrated excellence in scientific research in the above fields and cooperation with scientists from other BRICS countries.	
SECTION 3 OF 5 - List of Peer Reviewed Scholarly Publications: Please list the nominee's peer reviewed publications (publication titles should be translated into English). Please continue onto separate page if necessary.	
SECTION 4 OF 5 - Other Awards/Achievements/Contributions to market-led innovations: Please list below in English; please continue onto separate page if necessary.	

The 8th BRICS Young Scientist Forum

SECTION 5 OF 5 - Pictures or short videos of relevant scientific research achievements: Unlimited number of pictures, but each picture should not be larger than 1M. Each video should not be larger than 1GB.

DECLARATION BY THE CANDIDATE:

I hereby declare that all the information given above is true to the best of my knowledge. Further, in the event of being selected, I undertake to accept the offer to participate in the 8th BRICS Young Scientist Forum in South Africa and will attend the full programme of four days and will not seek any personalised programme during the visit.

PLACE:

DATE:

SIGNATURE OF THE NOMINEE:

The 8th BRICS Young Scientist Forum

NAME OF THE NOMINATING AUTHORITY (with contact details, i.e. telephone, email and designation)

PLACE:

DATE:

SIGNATURE:

NB: Remember to include the following on the Nomination Form:

- **Nominee's Curriculum Vitae/Biography**
- **Photo of nominee (image must be larger than 250*300 pixels)**



Nominee's Photo

The 6th BRICS Young Innovator Prize

South Africa

31 July 2023 – 03 August 2023

NOMINATION FORM FOR THE 6th BRICS YOUNG INNOVATOR PRIZE

**[..Name of the BRICS
Country..]**



REQUIRED DOCUMENTS:

- 1) Nomination form;
- 2) Nominee's Curriculum Vitae/brief Biography;
- 3) A photo of nominee (image must be larger than 250*300 pixels)

NOMINEE'S DETAILS/INFORMATION							
BRICS Country:							
Last Name:				First Name:			
Date of Birth (Day/Month/Year):				Passport Number: (Date of Issue: and Expiry Date:)			
Address:							
Telephone:				Email:			
Title:				Gender:			
Institution/Affiliation:							
Field of Science and Technology:							
ACADEMIC QUALIFICATION (please tick where appropriate)							
Bachelors	<input type="checkbox"/>	Masters	<input checked="" type="checkbox"/>	PhD	<input type="checkbox"/>	Other	<input type="checkbox"/>

Nomination Statement (up to 300 words): Please describe area of expertise in which the nominee has demonstrated innovation excellence. Please information in English.
Please describe area of expertise in which the nominee has demonstrated innovation excellence. Please information in English.
Innovative Project Statement (up to 300 words): Please provide brief information on the nominee's innovative idea. Please information in English.



Please provide brief information on the nominee's innovative idea. Please information in English

Participation in Innovation Competitions/Awards/Achievements: Please list previous participation in innovation competitions and awards/achievements, if any. Please provide information in English.

Please list previous participation in innovation competitions and awards/achievements, if any. Please provide information in English.

DECLARATION BY THE CANDIDATE:

I hereby declare that all the information given above is true to the best of my knowledge. Further, in the event of being selected, I undertake to accept the offer to participate in the 6th BRICS Young Innovator Prize in South Africa and will attend the full programme of four days and will not seek any personalised programme during the visit.

PLACE: _____

DATE: _____ **SIGNATURE OF THE NOMINEE:** _____



NAME OF THE NOMINATING AUTHORITY (with contact details, i.e. telephone, email and designation)

PLACE: _____

DATE: _____ **SIGNATURE:** _____

NB: Remember to include the following on the Nomination Form:

- **Nominee's Curriculum Vitae/Biography**
- **Photo of nominee (image must be larger than 250*300 pixels)**