



*BRICS Science, Technology and Innovation Policy and Foresight Symposium*



# *The Belt and Road STI Cooperation: current situation and prospective*

*HE Guangxi*

*Chinese Academy of Science and Technology for Development(CASTED)*





**中国科学技术发展战略研究院**

Chinese Academy of Science and Technology for Development



UNITED NATIONS  
EDUCATIONAL, SCIENTIFIC  
AND CULTURAL ORGANIZATION  
联合国教育、科学及文化组织



INTERNATIONAL RESEARCH AND TRAINING  
CENTER FOR SCIENCE AND TECHNOLOGY  
STRATEGY UNDER THE AUSPICES OF UNESCO  
国际科学和技术战略研究院与培训中心

one of the top china think tanks

policy research institute under the Ministry of Science and  
Technology, China

[en.casted.org.cn/en](http://en.casted.org.cn/en)



**science & innovation**

Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA



# Outline



## Background and Achievement

## Limits and Challenges

## Prospect of BRICS STI Cooperation



science & innovation

Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA





## Background and Achievement



science & innovation

Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA



# 2023: the 10<sup>th</sup> anniversary of BRI



- **2013, the Belt and Road Initiative, BRI**
  - the Silk Road Economic Belt
  - the 21st-Century Maritime Silk Road
- **an initiative for cooperation and development**
- **more than 200 cooperation agreements with 152 countries and 32 international organizations**
- **the 3rd Belt and Road Forum for International Cooperation (BRF) :  
17-18 Oct., 2023, Beijing**

# The role of international cooperation on STI is becoming more and more important



- 2017: “the road of innovation”, “the B&R STI action program”
- 2019: “high-quality development”, “the digital silk road”, “the innovative silk road”
- 2021: “new cooperations in health, environment, digital economy and innovation”



science & innovation  
Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA



# Progress in STI cooperation with the B&R countries



- more than 80 Science and Technology Agreements with the B&R countries
- “the B&R STI action program” was launched in 2017



science & innovation  
Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA



# 4 pillars under the B&R STI action program



- **personnel exchange in STI**
  - working: more than 15,000 young scientists working in China temporarily
  - training: hundreds of exchange and training projects, more than 200 thousands people
- **joint research laboratories and projects**
  - more than 50 joint research laboratories
  - more than 1000 joint research projects, more than 3 billion RMB fundings



science & innovation  
Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA







- **cooperation of S&T parks**
  - “export” of S&T parks: build S&T parks abroad, sister-parks with foreign parks, off-shore incubators
  - “import” of S&T parks: FDI parks inside Chinese S&T parks
- **the B&R technology transfer network**
  - 5 national technology transfer centers facing ASEAN, South Asia, Arabian countries, Central Asia, and Central and Eastern Europe
  - regional technology transfer centers



science & innovation  
Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA





## Limits and Challenges



science & innovation

Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA



# Limits of current cooperataion



- **the overall level of STI and cooperation of the B&R countries is low**
  - little S&T cooperation with many B&R countries
  - insufficient cooperation in R&Ds
  - insufficient cooperation in advanced tech industries
  - rule-based and institutioanl cooperation in the building of open innovation ecosystem among B&R countries is insufficient (including the international governance in STI)
- **multilateral cooperatin mechenism (and with S&T developed countries involved) is insufficient**

# New challenges and demands



- **external pressures is increasing**
  - fierce competition in STI among “great powers”, the trend of de-globlization. e.g., conflicts and decoupling between U.S. and China
  - more and more complicated geopolitics, e.g., Ukraine crisis, Israel Palestine conflict
- **demands for the B&R STI cooperation is increasing**
  - economic recession, inequality, climate change, energy shortage, public health crisis
  - increasing ethical and safe challenges of the development of new technologies
- **higher level and quality cooperation is appealing**



## Prospect of BRICS STI Cooperation



science & innovation

Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA





# President Xi Jinping's address in 2023

- great potential for the future STI cooperation among BRICS
- more bilateral cooperation under the 4 pillars of the B&R STI action program
  - 100 joint labs; more personnel exchanges; S&T park; technology transfer network (facing Africa, Latin America)
- multilateral cooperation platforms
  - cooperation in “the third market”, even with developed countries
  - global STI governance, e.g., AI governance, technology norms and standards
- focusing more on common goods and challenges
  - “small and beautiful” projects: poverty alleviation, climate change...



science & innovation  
Department:  
Science and Innovation  
REPUBLIC OF SOUTH AFRICA

