National Research and Innovation Agency (BRIN): A New Era of Indonesian STI Development for Sustainable Development Goal

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Outline

- BRIN as a policy option to coordinate STI Policy and Program:
  - STI policy and R&D governance framework for SDGs
  - OECD (2021) STI policy reform areas for sustainable and resilience futures
- Organizational structure of BRIN
- 3 Directions & 7 Development Targets of BRIN
- BRIN & STI policy reform areas
  - BRIN’s program on STI Human resources development
STI policy and R&D governance framework for SDGs (Aminullah, 2020)

Source: Aminullah (2020)
STI policy and R&D governance framework for SDGs (Aminullah, 2020)

Coherence STI Policy

Coordinated National R&D Program

Inter- and Trans-disciplinary research

Strong linkage: Industry & Research Organization

Source: Aminullah (2020)
1. Acquire dynamic capabilities of governments

2. Rebalance the STI Policy mix to target societal challenges

3. Implement global solutions for global problems

4. Promote trans-disciplinarity to deal with complex problems

5. Reform PhD training to support career path diversity

**STI Policy reform areas for sustainability (OECD, 2021)**
Pre-BRIN S&T Institutional Set-up

Figure: The administrative framework (Governance) for S&T policymaking in Indonesia

Source: (1) The Indonesian team in the STEPI Project 2020

- AIPI: The Indonesian Scientist Academy
- BAPETEN: Nuclear Energy Regulatory Agency
- BATAN: National Nuclear Energy Agency of Indonesia
- BPPT: Agency for the Assessment and Application of Technology
- BRIN: National Research and Innovation Agency
- BSN: National Standardization Agency
- DIPI: The Indonesian Scientist Funding
- LAPAN: National Institute of Aeronautics and Space
- LIPI: Indonesian Institute of Sciences
- LPDP: National Funding Management Agency
3 BRIN’s DIRECTIONS

Integration of S&T Resources: Human, infrastructure and budgets
To create critical mass, capacity and competency of Indonesian research system. Enable it to deliver invention and innovation as foundation to achieve “Indonesia Maju 2045”.

Creating an Open (inclusive) and collaborative global standard Indonesian research ecosystem
For all research performers: Academicians, Industry, Society and Government

Building foundation for a strong and sustainable Research-based economy
Focusing on digital, green and blue economy.
7 BRIN’s TARGETS

1. Integration of Government Research Organizations
   Completed at January 2022

2. Transformation of business process and research management
   Accelerating S&T resources critical mass building
   (Human, infrastructure and budgets)

3. Refocusing research
   STI Capacity building & To increase added-value of resource-based & diversity-based
   (bio-, geography-, arts- and culture-) economy.

4. Indonesia as global platform of natural resource and diversity-based research
   Accelerating S&T resources critical mass building
   (Human, infrastructure and budgets)

5. National Industries facilitation and enabler
   Enabling national industries to develop research-based products and in long term
   develop industrial research capacity

6. Building platform for creation of excellent S&T human resources
   and entrepreneurs

7. Increasing direct economic impact of research and
   Building research sector as investment target
1. Acquire dynamic capabilities of governments

2. Rebalance the STI Policy mix to target societal challenges

3. Implement global solutions for global problems

4. Promote transdisciplinarity to deal with complex problems

5. Reform PhD training to support career path diversity

As the major agency responsible for STI Policy, BRIN is to design an effective policy mix

BRIN is committed to established a research system that facilitates and promotes PhD training and post-doctoral research

The organization of BRIN is designed to promote and incentivize transdisciplinary research

BRIN is to become an open research platform for domestic research performers as well as global research performers

BRIN capable to think ahead (have a clear vision), to think across (learning from other experiences) and to think again (learning from experiences reflectively)
Research and Innovation Talent Development

National Talent Management in research and innovation
Basic platform to encourage researcher mobility

BRIN’s SUPPORT SCHEME
Science competition, mentoring and coaching
~ 19 year old

Science Engagement
MBKM
Research Final Report

Research Internship
Research infrastructure
~ 19-21 year old

Student
BSc
MSc
PhD

Research Fund
Research Infrastructure
Co-supervisor
~ 20-22 year old

RA
S2 by-research
Research Fund
Research Infrastructure
Co-supervisor
~ 21-24 year old

Research Theses
Research Dissertation

RA
S3 by-research
Biaya riset
Research Infrastructure
Co-supervisor
~ 23-29 year old

Post Doktoral
Researcher

Global Collaboration
Research Fund
Research Infrastructure
~ 28-32 year old

Employee
Visiting Prof.
BRIN’s
Research Visit

Visiting Researcher
Research Fund
Research Infrastructure
~ 30-50 year old

BRIN’s SUPPORT SCHEME
IPR facilitation, tenancy, pilot plant, technology licensing
Researchers, infrastructure

Research Infrastructure
NIDK / NIDN
~ 40-50 year old

Entrepreneur

PMDSU, Diaspora, local / foreign academics

Early stage research talent

RA: research assistantship
Closing Remark

• Indonesia is entering a new style of more integrated STI Policy development and implementation, with a promise of a better STI development and utilization.

• However, the challenge is how to organize a huge organization such as BRIN

• The successful operation of BRIN and the corresponding STI Policy reform, cannot be achieved without strong collaborations with global research performers
TERIMA KASIH
THANK YOU