BRIN
BADAN RISET
DAN INOVASI NASIONAL

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Introduction to National Research and Innovation Agency and the Future of R&D in Indonesia

L.T. Handoko

Chairman of National Research and Innovation Agency

ISEAS YUSOF ISHAK INSTITUTE **Institute of South East Asian Studies**

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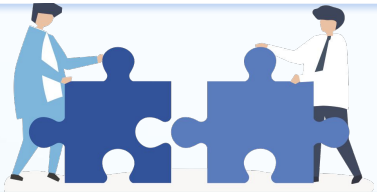
National Research and Innovation Agency

BRIN is a special governmental body direct under President (not a ministry, nor non-ministerial governmental institution)

- Not under coordination of any ministries / coordinating ministries.
- Integrating all (human, infrastructure, budget) resources of 48 governmental research institutions across ministries and institutes.
- Implementation period: August 2021, and the full transformation into single entity of BRIN starting from 1 January 2022.
- Covering all research fields.
- BRIN is responsible for national STI policy and executing agency of research, while Kemdikbudristek is responsible only science activities within universities.



BRIN ↦ Kemristek + 4 LPNK + 44 litbang K/L

- LAPAN — National Institute of Aeronautics and Space
- LIPI — Indonesia Institute of Sciences
- BPPT — Agency for the Assessment and Application of Technology
- batan — National Nuclear Agency

BRIN is mandated to overcome drastically low critical mass of research resources in Indonesia to:

- Improve research capacity and competences, in particular in term of research infrastructures.
- Attract the young talents on research to join and to contribute in any research activities in Indonesia.
- Support global engagement and collaboration ↦ speed up knowledge and skill transfer through research collaborations.
- Enable government as a facilitator / enabler for local business players to conduct R&D based product development with very low investment.

Constitution 11/2019 about National System for S&T
Constitution 21/2013 about Space
Constitution 25/2004 about National Development Planning System
Constitution 10/1997 about Nuclear

Source: Presidential Decree 78/2021

RIRN 2017-2045

National Research Roadmap (Rencana Induk Riset Nasional – RIRN) in term of macroeconomic indicators related to the *input*, *output*, and *outcome* of research.

TARGET	2015	2020	2025	2030	2035	2040	2045
Number of researcher/1M population	1.071	1.600	3.200	4.800	6.400	8.000	8.600
GBOARD/GDP (%)	0,15	0,21	0,42	0,63	0,84	1,05	1,26
GERD/GDP (%)	0,20	0,84	1,68	2,52	3,36	4,20	5,04
Number of graduate/under graduate students (%)	5,6	20	40	60	80	90	100
Research Productivity	0,02	0,04	0,08	0,10	0,14	0,18	0,22
Multifactor Productivity (%)	16,7	20,0	30,0	40,0	50,0	60,0	70,0

Researchers with PhD holders ~ 15% (2017)

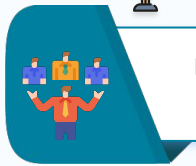
Indonesia in 2015

Korea Selatan in 2015

Source: Presidential Decree 38/2018 about RIRN 2017–2045

3 Directions and 7 Targets

Directions



Integrating research and innovation (human, infrastructure, budget) **resources** — 1

To improve critical mass, the capacity and competence of Indonesian research in producing inventions and innovations as the foundations of Indonesia Maju 2045.

Creating an open **(inclusive)** and **collaborative "global standard" research ecosystem** — 2

For all parties (academia, industry, community, government).

Creating **the foundation of a strong and sustained research** and innovation based economy — 3

With focus on digital - green - blue economy.

Targets

- **Integrating major governmental research institutions** by January 1st, 2022.
- **Transforming business process** and **research management to increase the critical mass of research and innovation** (human, infrastructure, budget) **resources.**
- **Refocusing the research program** to **increase the value added of local natural resources and** (bio, geo, art and culture) **diversity.**
- **Making Indonesia as a global platform** for **natural resources** and **diversities based research.**
- **Facilitating** and **being the enabler for national industries** and **business players to conduct R&D based product development.**
- **Providing a platform** for **talented human resources in any research fields**, and **research and innovation based entrepreneurs.**
- **Increasing direct economical impact from any research activities**, and **turning the research and innovation sector** into **a long term investment destination.**

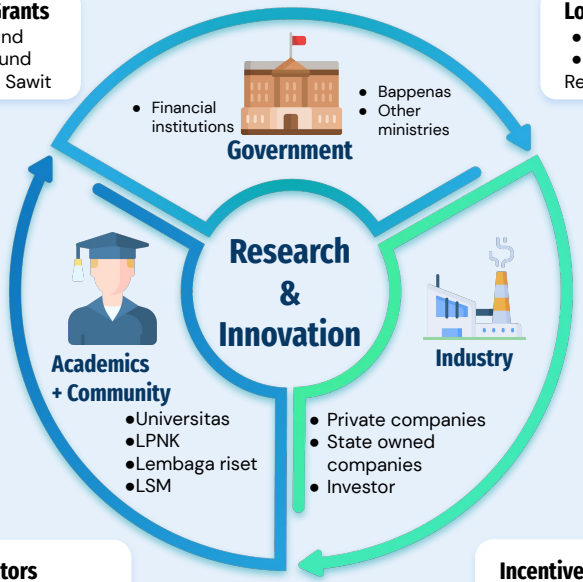
Source: Presidential Decree 38/2018 about RIRN 2017-2045, Permenristekdikti 38/2019 about National Research Priority 2020-2024

Driving Regulations

National Policy
UU No. 11/2019 Pasal 34, 35, 36, 37

National Potential
(research, resources, HR, etc)

National economic strength
(competitiveness,)



Research and innovation Grants
- Research Endowment Fund
- Education Endowment Fund
- Dana Perkebunan Kelapa Sawit

Local content
- Inpres TKDN
- Inpres Pemanfaatan PDN

Research is a part of local content

Procurement
- Perpres 16/2018, 12/2021
- Per LKPP 9/2021

e-Catalogue for innovation

Incentive for inventors
- PMK 72/2019
- PMK 6/2016

Royalty for inventors

Incentive for business players
- PP 45/2019
- PMK 153/2020

Super Tax Deduction 300%

National Talent Management
- Presidential Decree on National Talent Management
- BRIN is responsible for talents on research and innovation.

BRIN provides platforms for young talents in research to groom themself to be future mature researchers in their fields.

Open Research Infrastructure
BRIN plays as the main provider for research infrastructure for all parties.

Primary Scientific Data Repository
- Constitution 11/2019 Pasal 40
- Protection to local wisdom

Endowment Fund
- Constitution 11/2019 Pasal 62
- R-Perpres Pengelolaan Dana Abadi
- BRIN ↦ pengelola imbal hasil dana abadi terkait

Struktur Organisasi

PRESIDEN

DEWAN PENGARAH
Ketua: unsur Dewan Pengarah BPIP
Wakil Ketua: Menkeu, MenPPN
Anggota: 6 unsur profesional dan / atau akademisi di bidang riset

KEPALA BRIN

WAKIL KEPALA BRIN

INSPEKTORAT UTAMA
3 INSPEKTORAT

SEKRETARIAT UTAMA
5 BIRO

DEPUTI
Bidang Kebijakan Pembangunan
1 SekDep
4 Direktorat

DEPUTI
Bidang Kebijakan Riset dan Inovasi
1 SekDep
3 Direktorat

DEPUTI
Bidang Sumber Daya Manusia Iptek
1 SekDep
3 Direktorat

DEPUTI
Bidang Riset dan Inovasi Daerah
1 SekDep
3 Direktorat

DEPUTI
Bidang Infrastruktur Riset dan Inovasi
1 SekDep
5 Direktorat

DEPUTI
Bidang Fasilitasi Riset dan Inovasi
1 SekDep
3 Direktorat

DEPUTI
Bidang Pemanfaatan Riset dan Inovasi
1 SekDep
3 Direktorat

Pusdatin | **Pusyantek** | **Poltek TN**

Sekretariat Non struktural

Organisasi Riset

- **OR. Tenaga Nuklir**
- **OR. Penerbangan & Antariksa**
- **OR. Pengkajian & Penerapan Teknologi**
- **OR. Ilmu Pengetahuan Hayati**
- **OR. Ilmu Pengetahuan Kebumian**
- **OR. Ilmu Pengetahuan Teknik**
- **OR. Ilmu Pengetahuan Sosial Humaniora**
- **OR. Kelautan & Perikanan**
- **OR. Arkeologi**
- **OR. Metrologi**
- **OR. Agama & Keagamaan**
- **OR. Bahasa & Sastra**
- **OR. Lingkungan Hidup & Kehutanan**
- **OR. Tata Kelola Pemerintahan & Kesejahteraan Masyarakat**
- **OR. Pertanian & Peternakan**
- **OR. Kesehatan**

layanan internal + infrastruktur perkantoran

layanan eksternal + infrastruktur riset

pelaksana teknis riset ↦ OR / Organisasi Riset (Es I/a) + Pusat-Pusat (Es II/a) non-Eselon

Sumber: Perpres 78/2021 tentang BRIN, Peraturan BRIN xx/2021 tentang OTK BRIN

Supporting Science-based Policy

BRIN's FOCUS

Providing the science-based policy recommendations at national and sectoral level with:

↦ better helicopter view.
↦ evidence and data based analysis.
↦ well proven scientific method.

QUALITATIVE ANALYSIS

SCIENCE based POLICY

FEEDBACK

Ministries Institutions

PUBLIC

Improving Research and Innovation Ecosystem

1. Low critical mass, scattered resources.
2. Dominated by governmental bodies.
3. Low collaboration.

Public

Global Network

Talents ~ 70%

BRIN

Business players

Academics

Infrastructure ~ 20%

Budget ~ 10%

Improving Research and Innovation Ecosystem

BRIN is the ultimate solution for low *critical mass*, creating the *collaboration hub + enabler* for multi local and global stakeholders, in particular local industries to enter R&D based product developments.

Business Players

- ❖ Free of charge for partners
- ❖ Facilitating R&D industry
- ❖ Collaboration on industrial problem
- ❖ Reducing investment risk on R&D

No direct financial support for partners!
1) Developing new business model.
2) Increasing the economic scale.
3) Transforming research activities into new business.

Open Platform

(HR, infrastructure, network)

 # Scientifically well-proven
 # Comply with regulations / standards

Creative Economy

Global Collaboration

Academics

- ❖ Free of charge for collaborators
- ❖ RA (Research Assistantship) students
- ❖ Facilitating Startup (Tenant, HKI..)

1) Capacity building:
- Recruitment of PhD
- PhD *by-research*
- Postdoctoral

2) Mobility program:
- MBKM
- Visiting professorship
- Visiting fellow
- Research assistantship

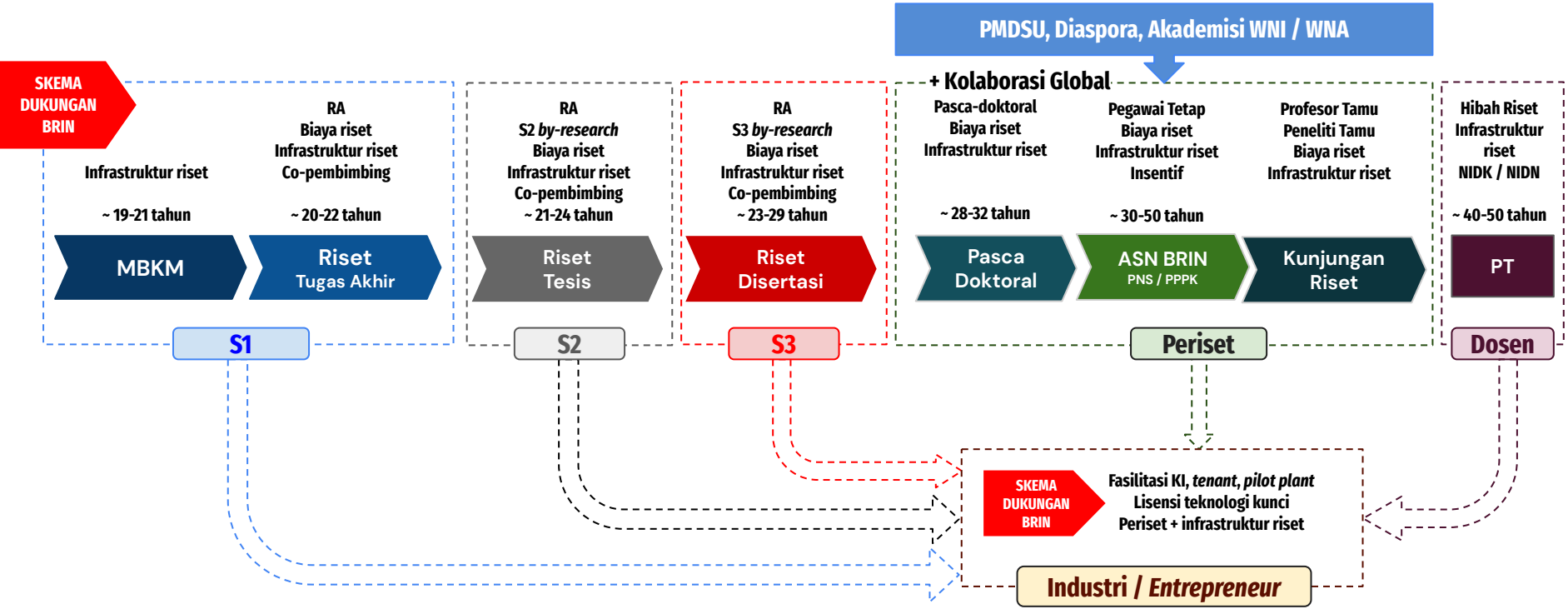
BRIN's KPI:
Increase the private contribution on research

Facilitation to stimulate *inno-preneurship* through direct involvement in any research activities.

Pengembangan Talenta Riset dan Inovasi

Manajemen Talenta Nasional (MTN) bidang Riset dan Inovasi

Platform dasar untuk peningkatan mobilitas periset



RA: *research assistantship*

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Gedung B.J. Habibie
Jl. M.H. Thamrin 8, Jakarta 10340, Indonesia