

MANAGING COLLABORATIVE WORKING IN CASE OF LIPI



- BAMBANG
SUBIYANTO

- DPEUTY CHAIRMAN FOR
SCIENTIFIC SERVICES - LIPI



PRESENTATION CONTENT

- **Profile Overview of Indonesian Institute of Sciences (Lipi)**
- **International Center for Interdisciplinary and Advanced Research (ICIAR) as Position for International Collaborative Working**
- **Future Challenge**





LIPI

PROFILE OVERVIEW



- **Oldest research institution**
 - Established in 1967
 - Its history is much older, rooted from colonial era, in 1817 (Center for Plant Conservation/ Bogor Botanical Garden)
- **Largest research Institution**
- **Top 5% world wide (Webometrics)**
- **Leading patent contributor in Indonesia**





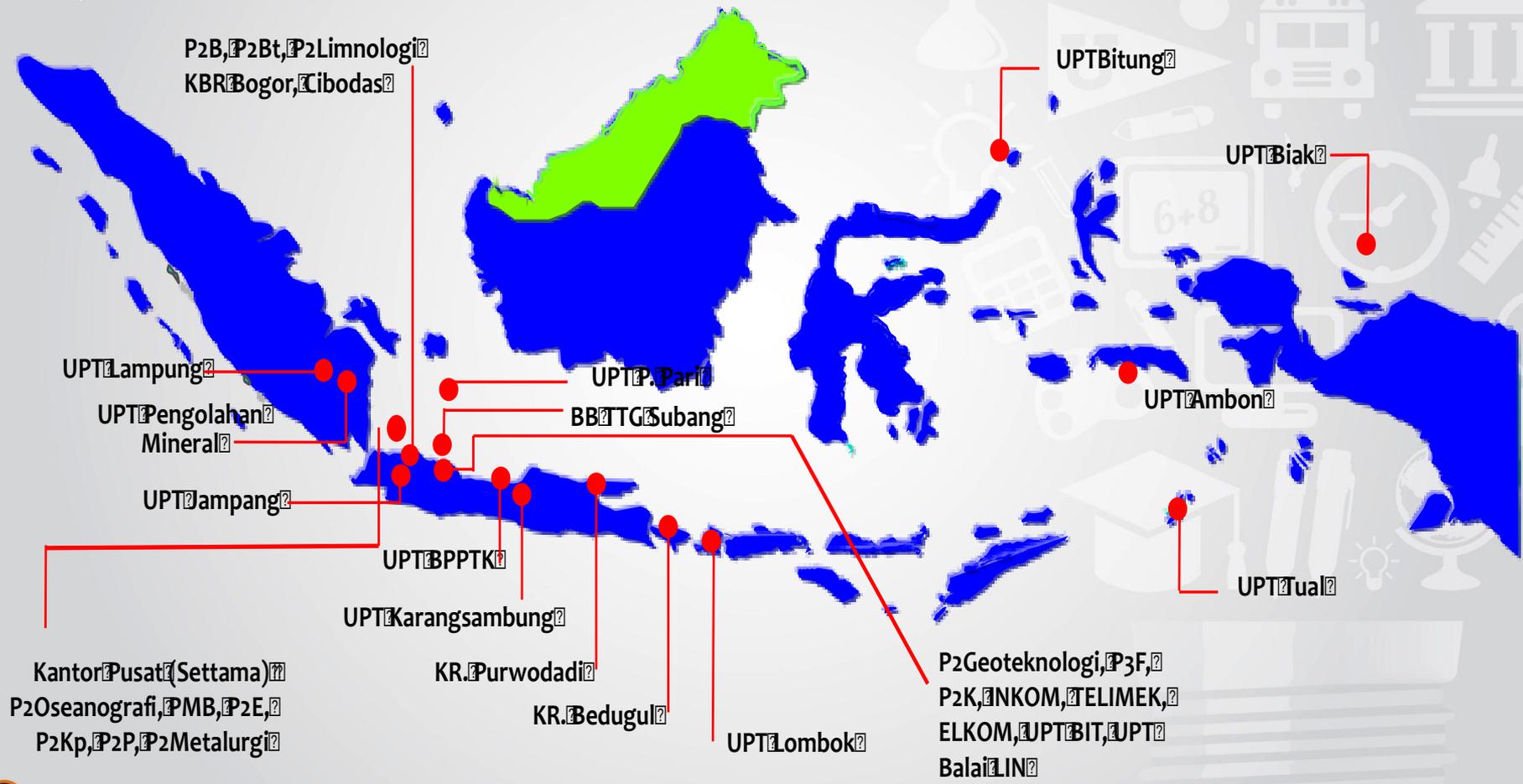
Largest Research Institution

- 26 Research Centers
- 16 Technical Implementation Units
- 4 Administrative Bureaus
- 2 International Center
- 4 Botanical Gardens
- 4648 employees (1543 researchers)
- Located in 11 provinces
- 4 places of main campus





DISTRIBUTION OF LIPI'S OFFICE





World Class Facilities

For Biodiversity and Life Sciences

- **Herbarium Bogoriense**
 - Third largest herbarium in flora reference collections
 - Established in 1817
- **Zoologicum Bogoriense Museum**
 - Top ten largest fauna specimen reference collections
- **4 Botanical Gardens**
 - Bogor (est. 1817), Cibodas (est. 1861)
 - Bali and Purwodadi



Other Facilities

- **2 Marine Research Vessel**
 - Baruna Jaya VII (Ambon)
 - Baruna Jaya VIII (Jakarta)
- **National Centre for Scientific Documentation and Information**
- **Center for Measurement and Assessment Standards serves as National Reference for Measurement and Testing**





RESEARCH CENTRES

EARTH SCIENCES

Geotechnology
Oceanography
Limnology
Metalurgy and Material
Deep Sea, Ambon

LIFE SCIENCES

Biology
Biotechnology
Biomaterials
Botanical Garden Conservation Center

ENGINEERING SCIENCES

Physics
Chemistry
Electricity & Mechatronics
Electronics & Telecommunication
Appropriate Technology Development

SOCIAL SCIENCES & HUMANITIES

Social & Culture
Economics
Population
Politics
Regional Resources

SCIENTIFIC SERVICES

Center for Innovation
Center for Documentation & Scientific
Information
Metrology
Quality System & Assessment Technology

Development of Science &
Technology

Center for Researcher Development, Education
and Training

Scientific Authority

1. Governing body for researchers nation wide (training, assessment and authorization / granting of Research Professorships)
2. Accreditation for Indonesian scientific journals
3. Scientific authority in the fields of:
 - a) Biodiversity Conservation and Utilities eg.CITES
 - b) Botanical Gardens Construction and Management
 - c) Scientific Measurement and Testing



International Centers

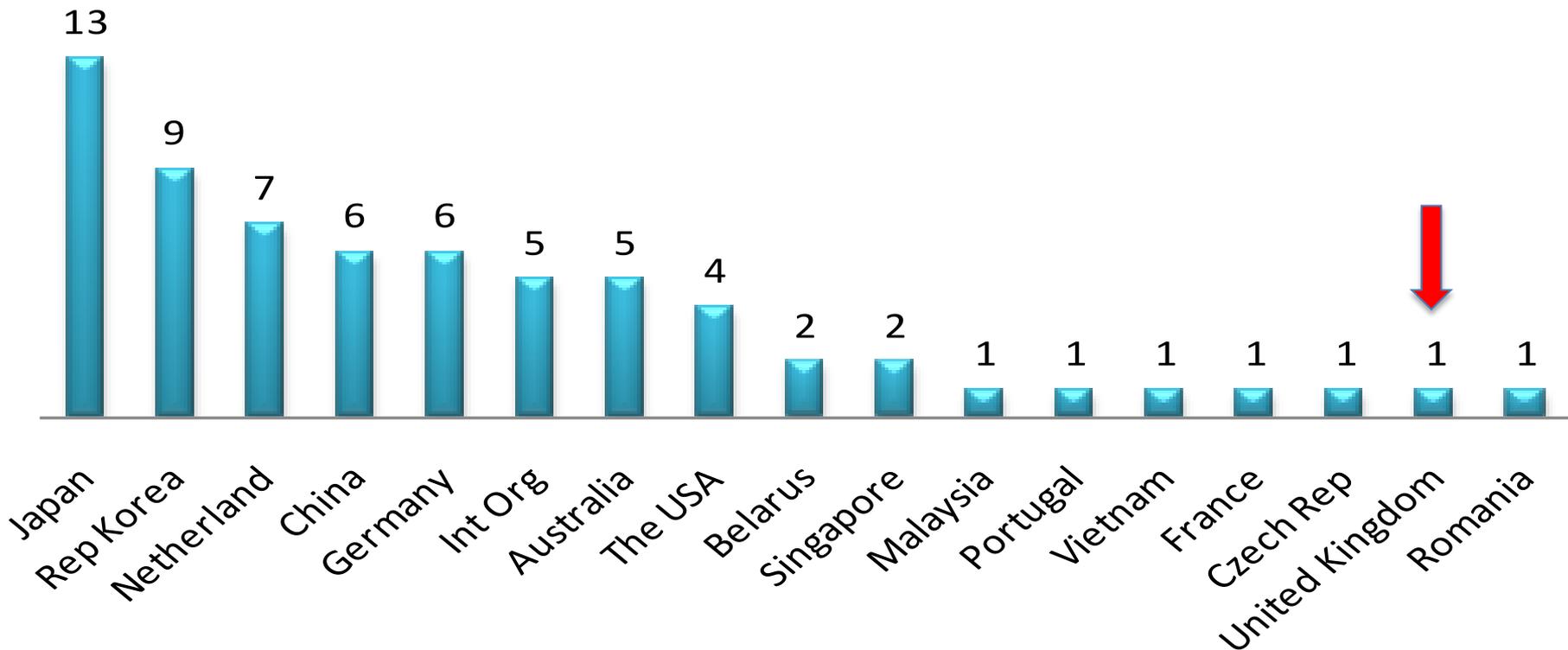
- **Asia-Pacific Centers for Ecohydrology (APCE)**

- **International Center for Interdisciplinary and Advanced Research (ICIAR)**



International Collaboration (2007 – 2013)

International Collaboration (2007-2013)

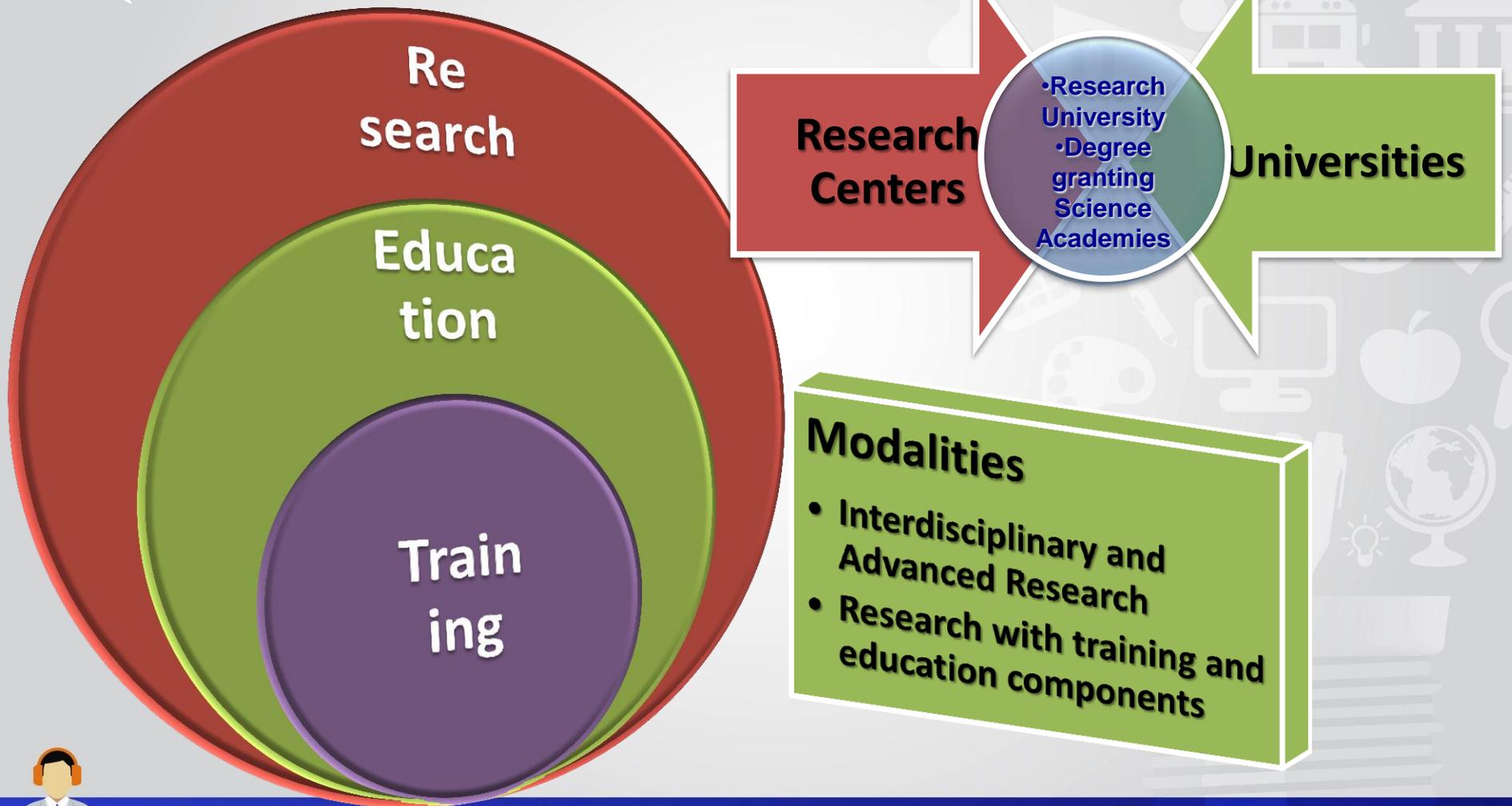




International Center for Interdisciplinary and Advanced Research (ICIAR)



Core Modalities of ICIAR



Purpose:

- Establishing LIPI's International Center for Interdisciplinary and Advanced Research with the central attention on **Environment and Human Security** to produce great science, through advanced and frontier research programmes, leading to **strategic and sustainable solutions** to the global, regional, national and local emerging problems.

Missions

- To ***further develop LIPI's existing research capacity*** in environment and human security at large through the implementation of multidisciplinary advanced and frontier mission-oriented research programmes in selected fields,
- To produce ***great science and knowledge*** leading to strategic solutions to the environment and human security issues and their relevant emerging challenges, and
- To contribute to the ***world of knowledge*** on the basic understanding of environment and human security and its viable developmental significance.





Research Programmes

Interdisciplinary and Advanced Research on Environment and Human Security

**Biogeo
dynamics
and
sustain
able
environ
ment**

**Climate
change
and
disaster
risk reduc
tion**

**Coastal
commu
nity resi
lience**

**Food,
health
and
biomed
ical
studies**

**Green
advan
ced
materi
als**

**Conflict
and crisis
manage
ment,
and inter-
cultural
studies**



Current International and National networking development

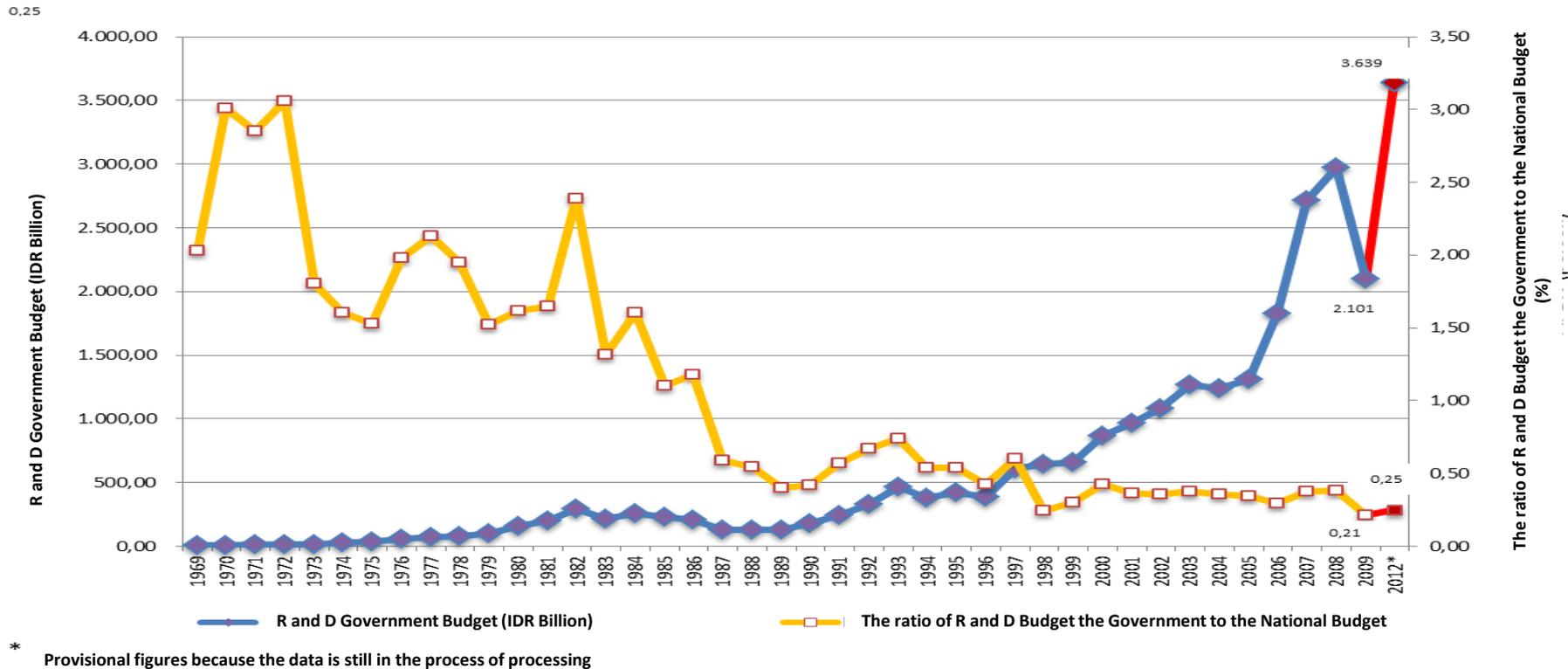




TREND INDONESIA SCIENCE AND TECHNOLOGY AND ITS PROBLEMS



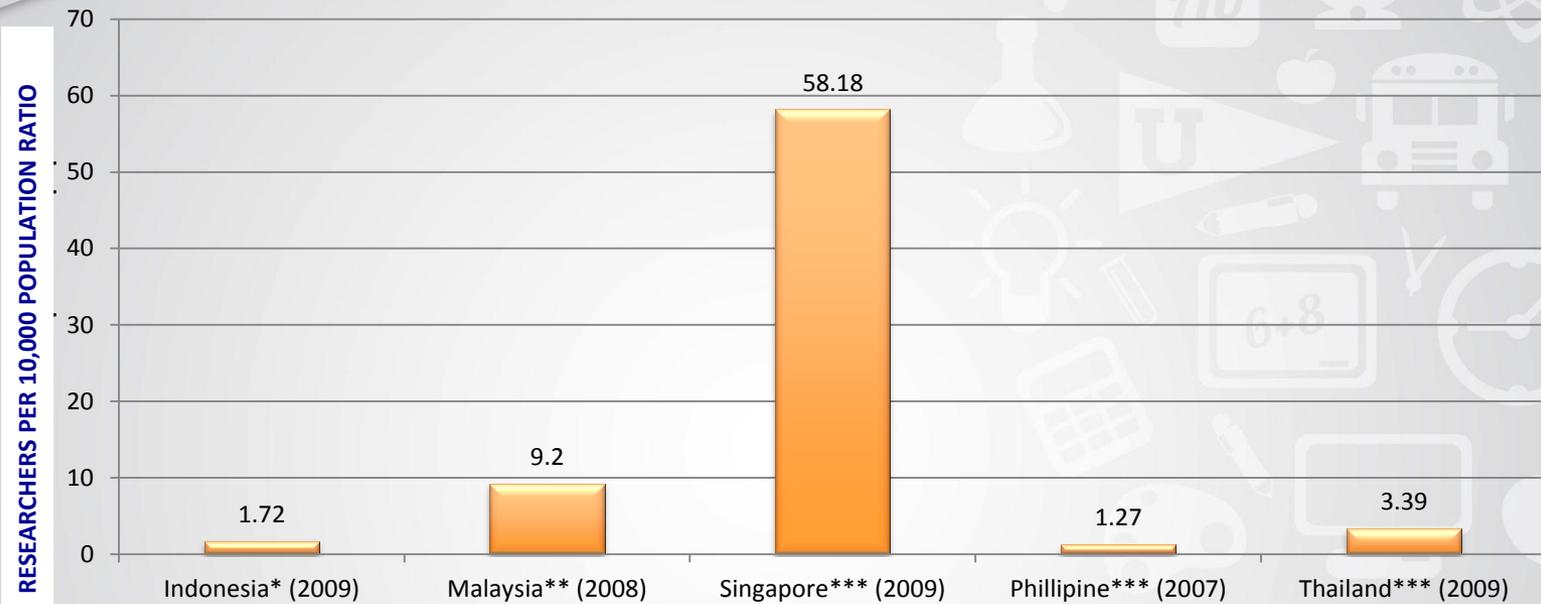
RESEARCH AND DEVELOPMENT GOVERNMENT BUDGET 1969-2012



Source: Indonesian Science and Technology Indicators 2010

PROBLEM Science and Technology
 Throughout the years 1980-2012 a decline in the government's attention to the priority of science and technology very low that show in the government budget.

RATIO OF RESEARCHERS PER 10,000 POPULATION IN ASEAN



sources:

*) Indonesian Science and Technology Indicators 2011

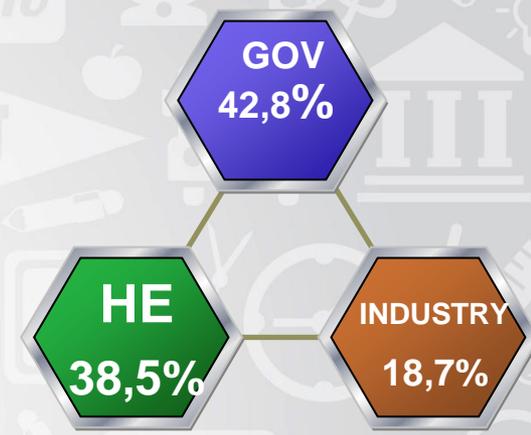
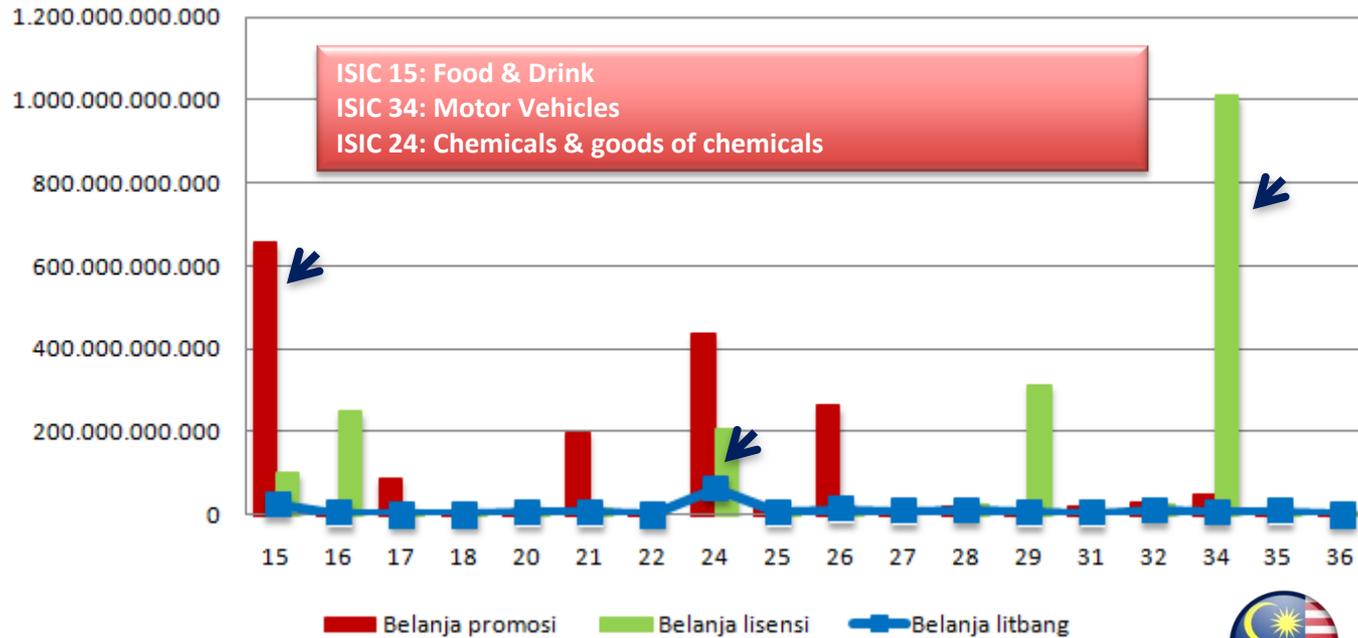
**) Malaysian S & T Indicators, 2010

***) State of Development of R & D in ASEAN 2011





PRIVATE SECTOR CONTRIBUTION FOR R & D



→ Private sector : 84,9%
 → Private sector: 45%

(de La Pena, State of Development R&D in ASEAN)

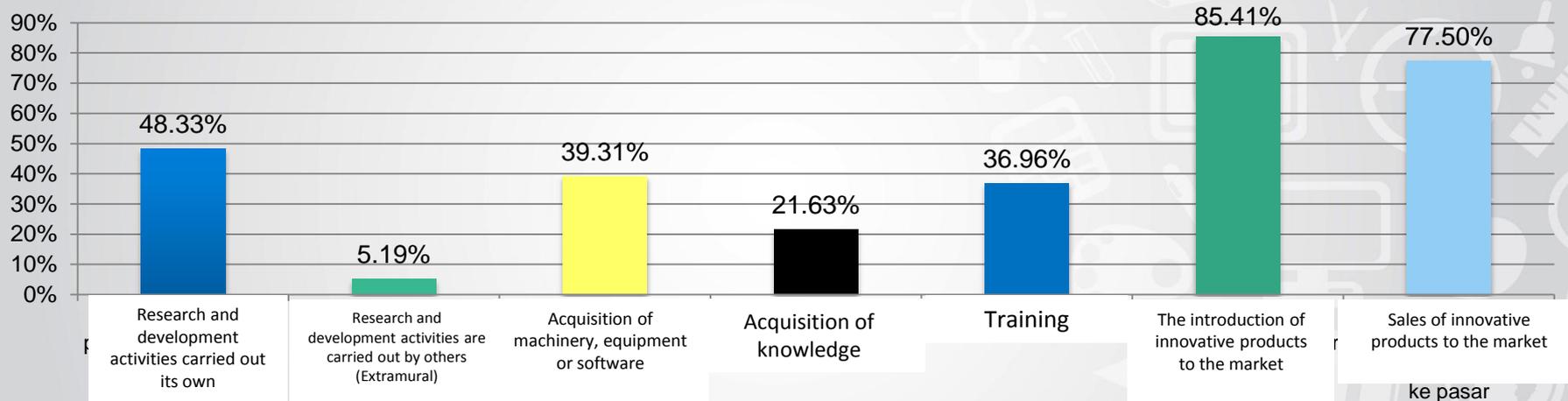
The lack of private sector interest in R & D activities allegedly because not supported by tax incentives for R & D as in developed countries

Source: Survey of R & D sector Manufacturing Industry, 2010. Pappiptek-LIPI; Data estimates from the college sector R & D survey (2009) and Industrial Manufacturing (2009) conducted PAPPIPTEK-LIPI and public sector R & D survey (2008)



INNOVATION ACTIVITIES

Innovation activity that most people do is related to marketing innovations, such as the introduction of products and after sales activities



The private sector tends to innovate without the cost of R & D, resulting in less innovation of products and processes that are essential to long-term competitiveness





FUTURE CHALLENGES

INDONESIA SHOULD ENCOURAGE INNOVATION THROUGH ECONOMIC GROWTH BASED R & D

- Encouraging creative industry companies small and medium scale into a multinational company with the support of R & D
- Institutional framework that supports to facilitate the financing of R & D, collaborative R & D, R & D incentives
- Direction of research activities need to select seed fields (picking the winner) that will create a basic technology for competitive advantage Indonesian sources such future biodiversity-based (eg, with accelerated development of CSC)





www.lipi.go.id



TERIMA KASIH



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