

# ITB-Industry Collaboration in The Global Context

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# Collaboration to address global issues

- Example of global issues
  - Connectivity
  - Conflict
  - Diversity in culture
  - Language
  - Energy, Health, Environment
  - Reduction of CO<sub>2</sub>
- Chris Liewellyn Smith, Director of Energy Research at Oxford University and Chair of the Royal Society's study: *„Science has a very important role in addressing **global** challenges, and **collaboration** is necessary so that everybody can agree on global solutions. The more countries are involved in science, the more **innovations** we will have and the better off we will be”.*



# Knowledge, Network and Nations

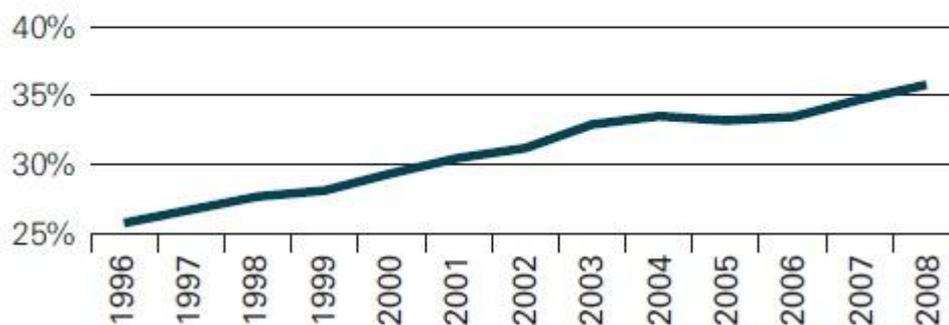
## Global Science Collaboration in the 21<sup>st</sup> Century

- The royal Society's Five Recommendations
  1. Support for international science should be maintained and strengthened
  2. International collaborative science should be encouraged, supported and facilitated
  3. National and International strategies for science are required to address global challenges
  4. International capacity building is crucial to ensure that impact of scientific research are shared globally
  5. Better indicators are required in order to properly evaluate global science.



INDICATION OF THE INCREASE IN INTERNATIONAL COLLABORATION  
AS INDICATED BY THE INCREASE IN THE PROPORTION OF THE WORLD'S  
PAPERS PRODUCED WITH MORE THAN ONE INTERNATIONAL AUTHOR  
1996-2008

Figure 2.1. Increase in the proportion of the world's papers produced with more than one international author, 1996–2008.<sup>161</sup>

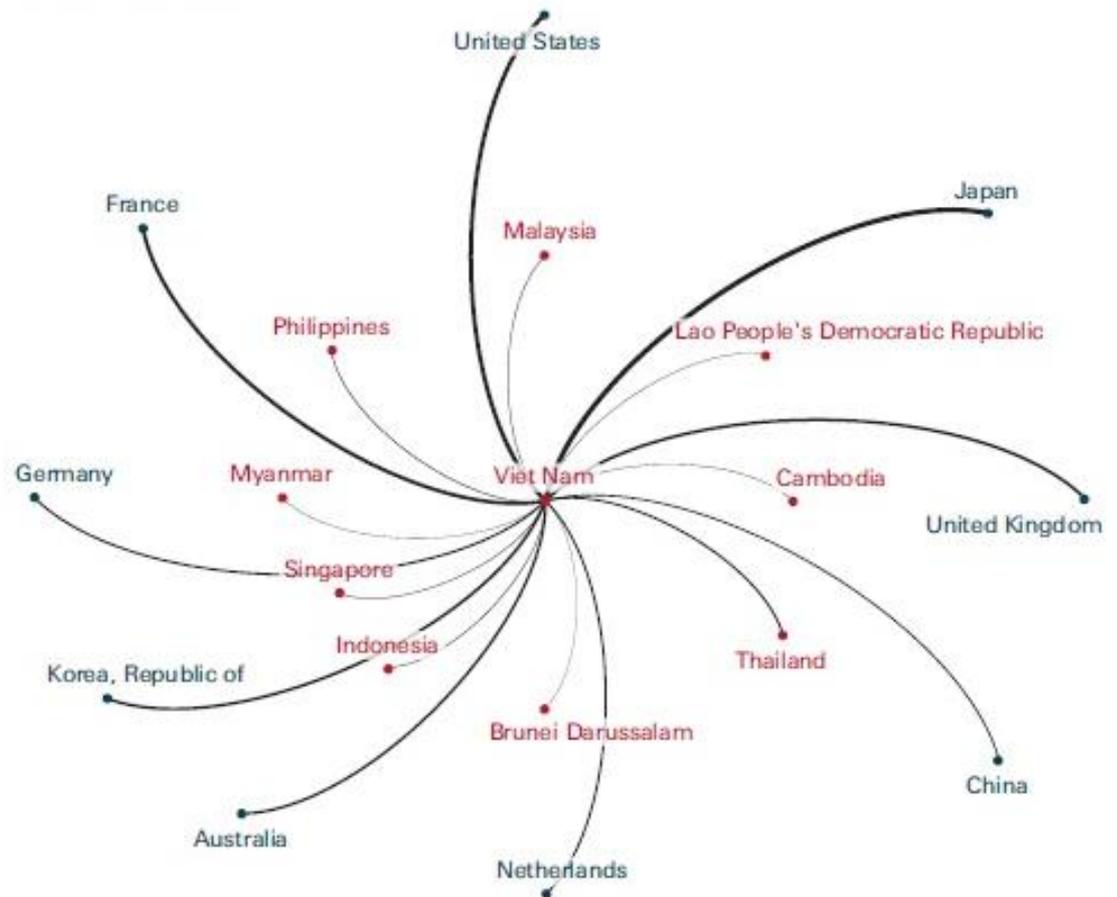




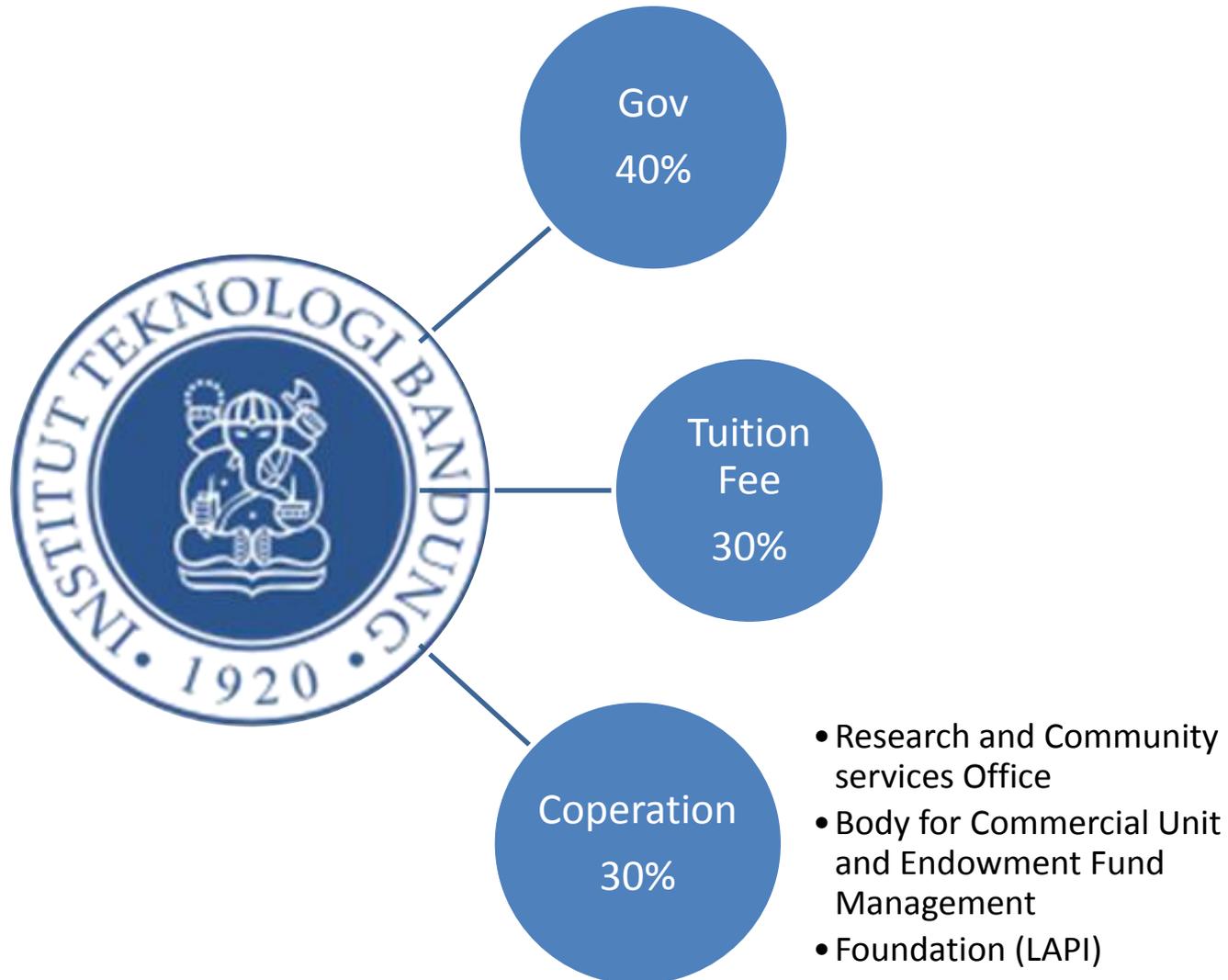
Scientific collaborations among ASEAN countries is still lower than between ASEAN country and non-ASEAN country.

(See the example of Vietnamese Collaborative papers as a proportion Of total output (2004-2008))

Source: *Knowledge, network and nations. Global scientific collaboration in the 21<sup>st</sup> Century*, Royal Society, 2011



The inner circle shows the collaborations with other South-east Asian neighbours, and the outer with the countries where the proportion of collaboration is highest. The thickness of the line indicates the volume of output.





## Research and Community Services

Government  
and  
International  
Research Grant

Commercialization  
of Research  
Product

## Body for Commercial Unit and Endowment fund Management

11 university own  
companies

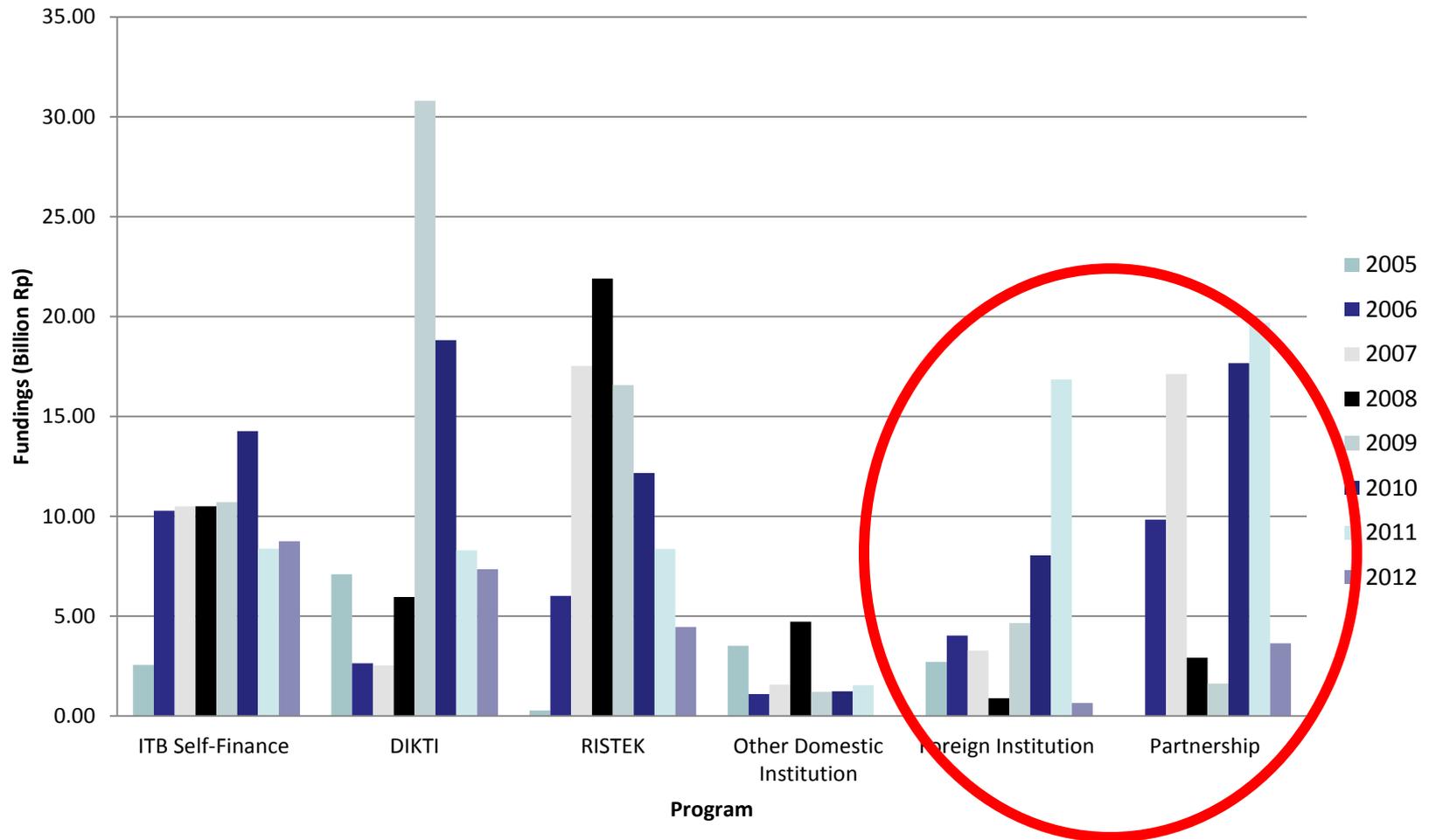
3 asset management  
(Convention, Hotel)

## Foundation LAPI

Project/consultancy



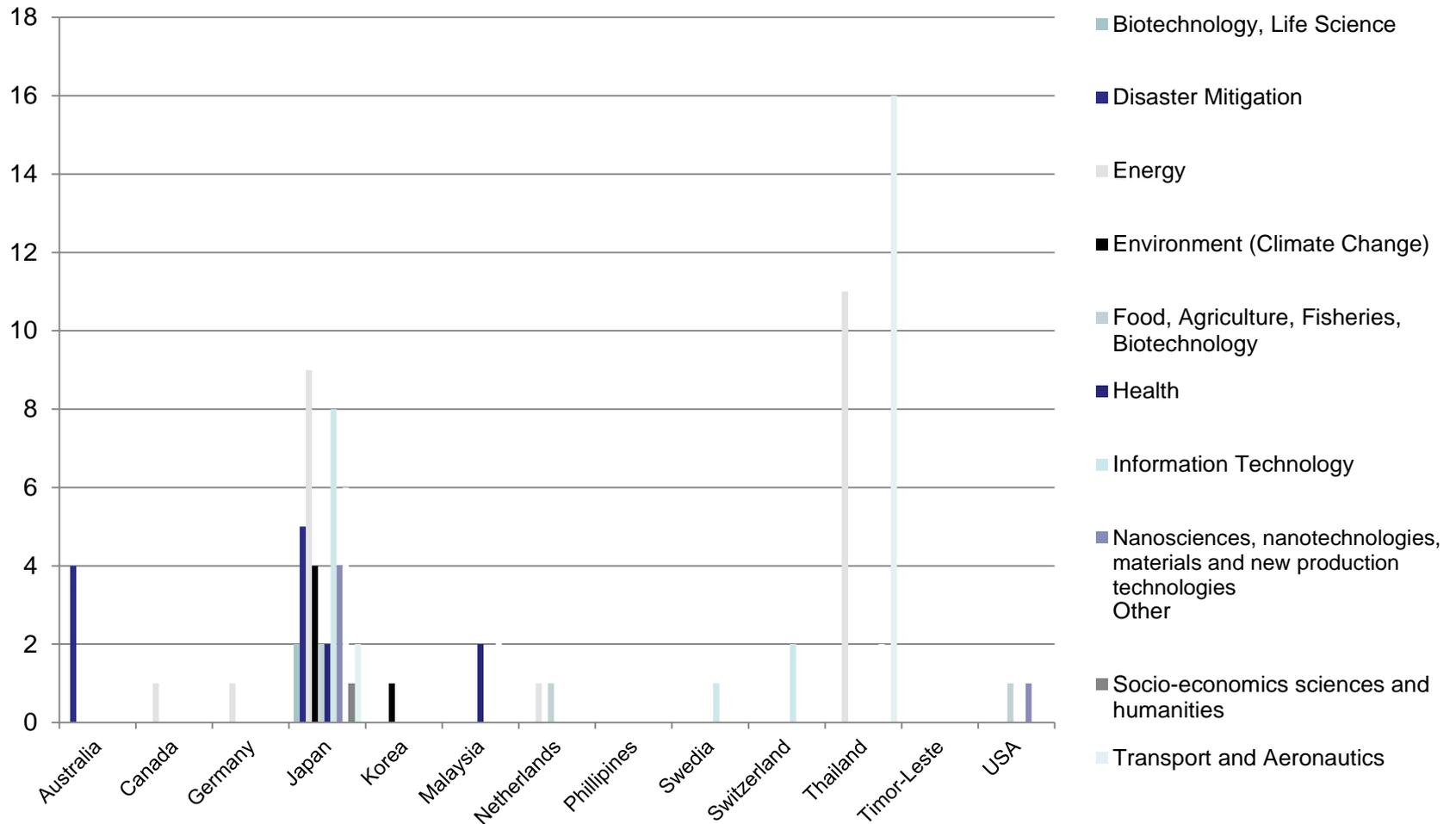
## Source Funding of Research (2005-2012\*)



\*) by April 2012

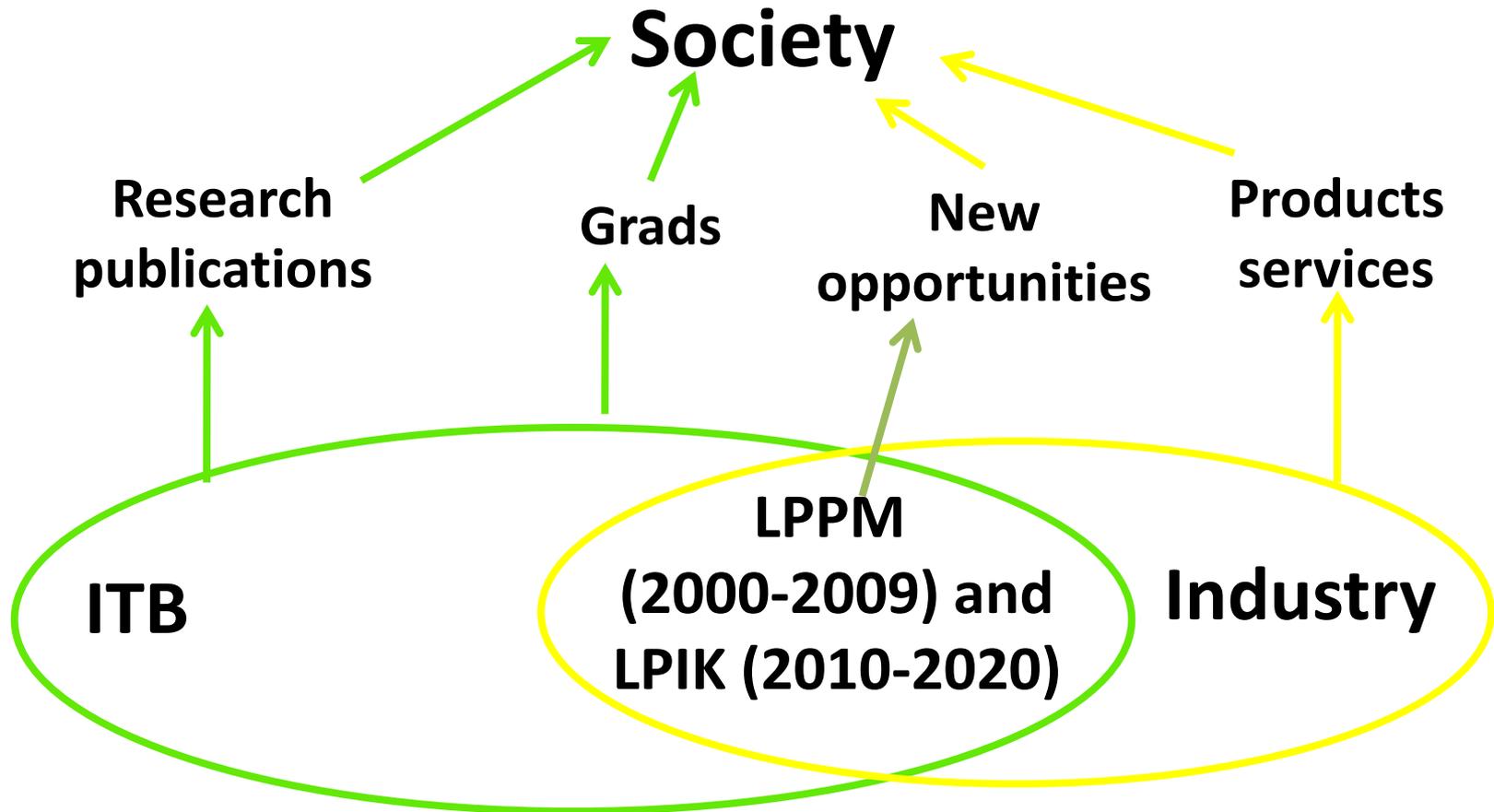


# Research Fields of International Science & Tech Cooperation 2010-2012

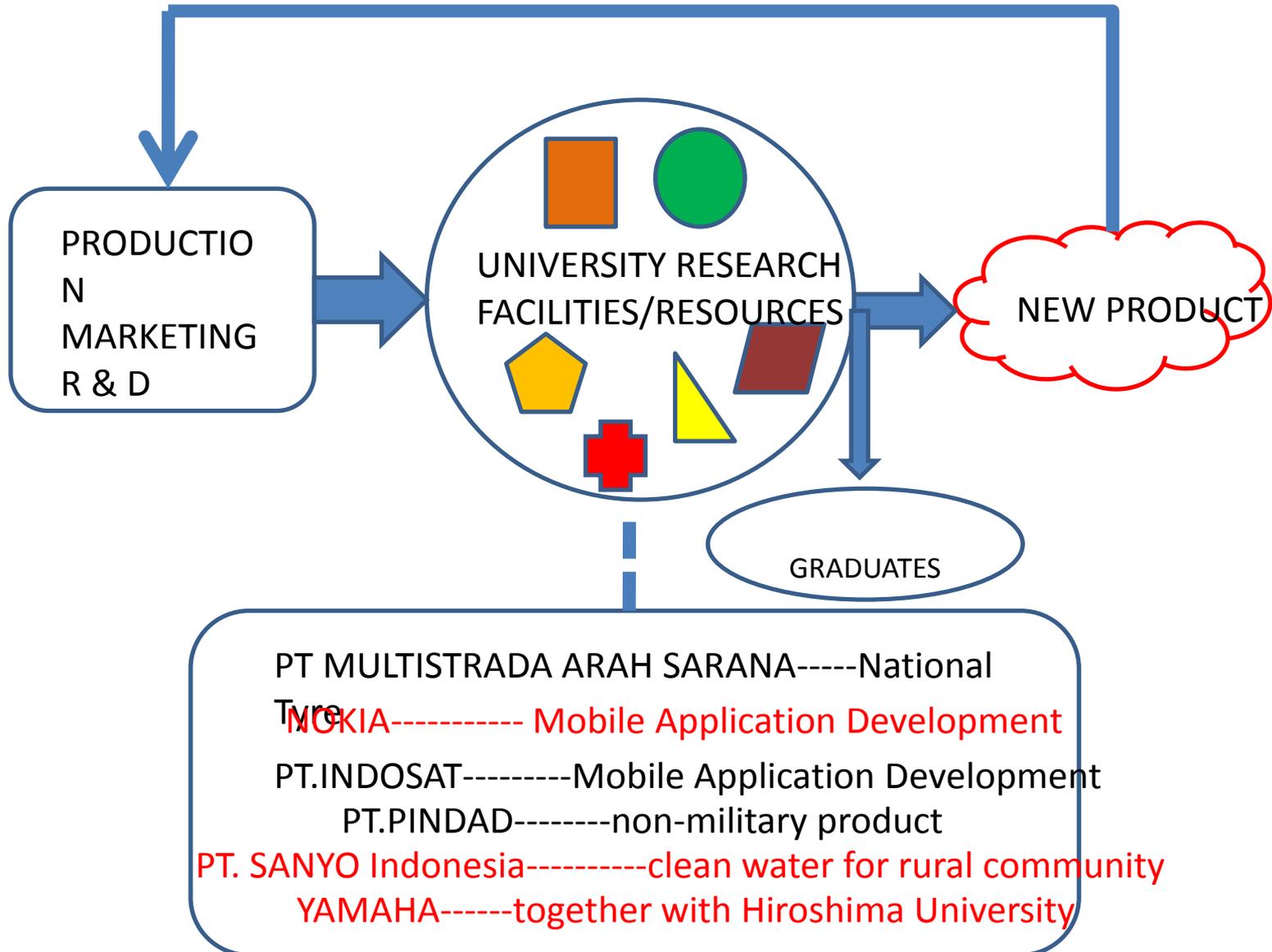


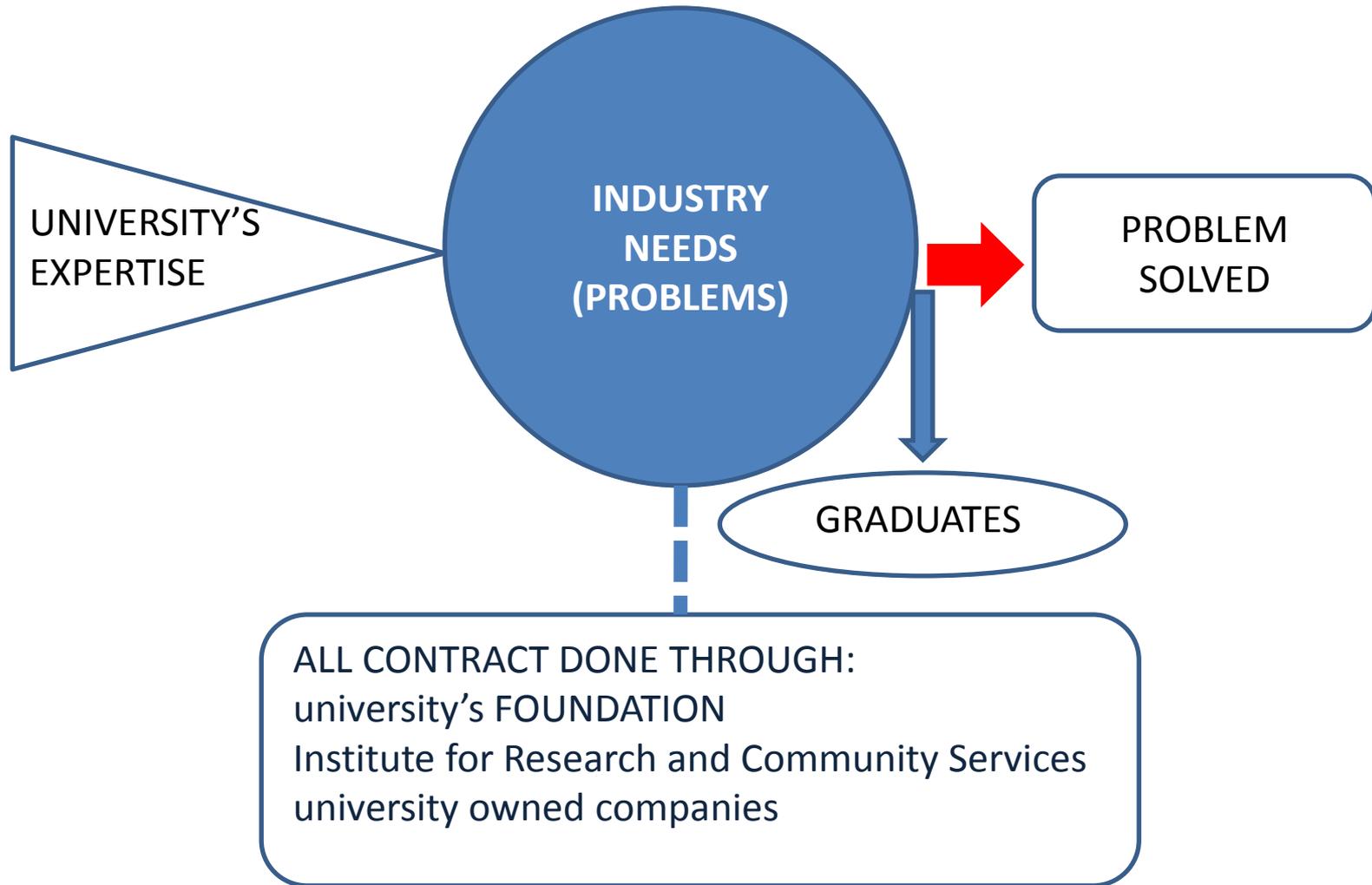


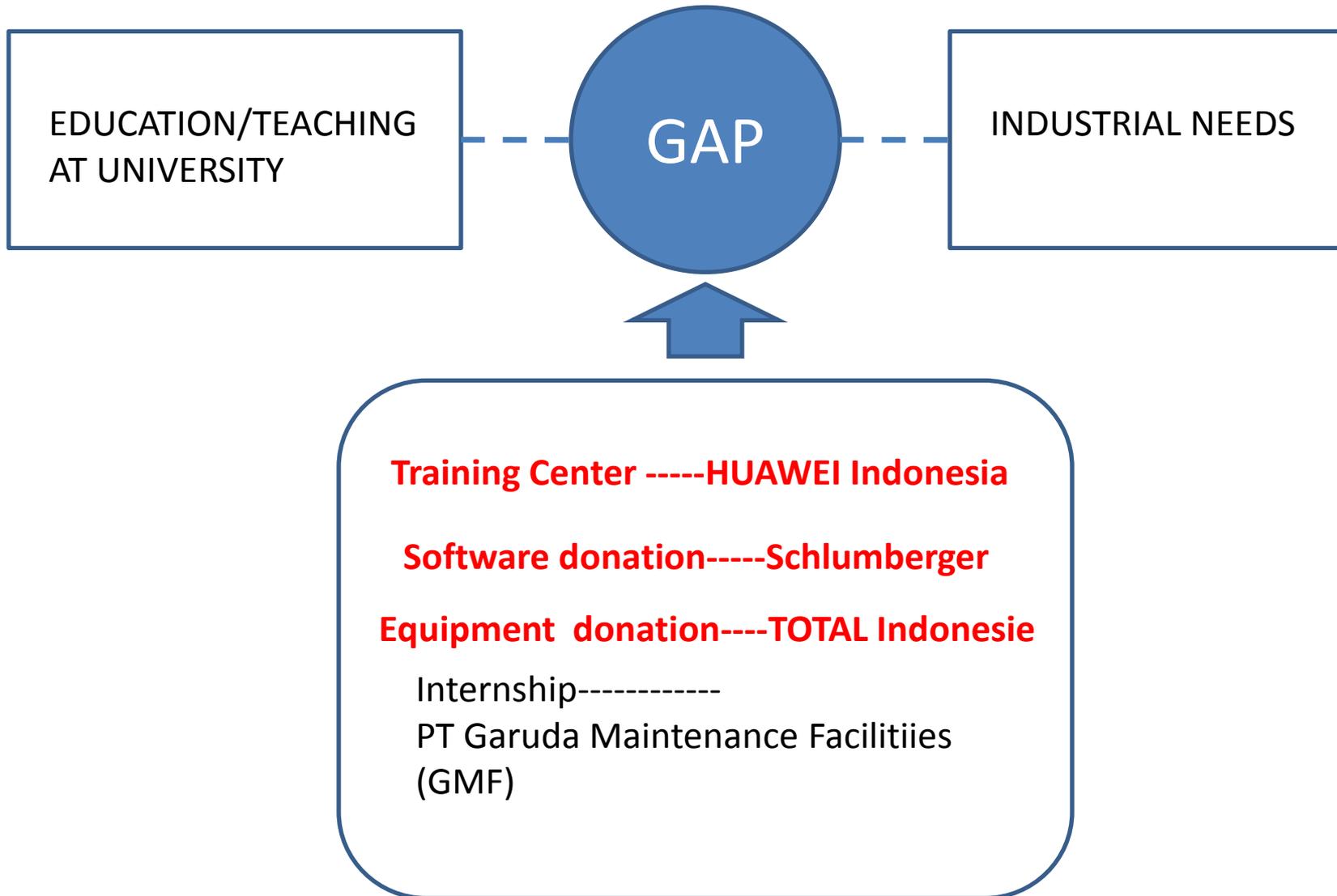
# ITB-2020 : *ITB-Industry partnership*

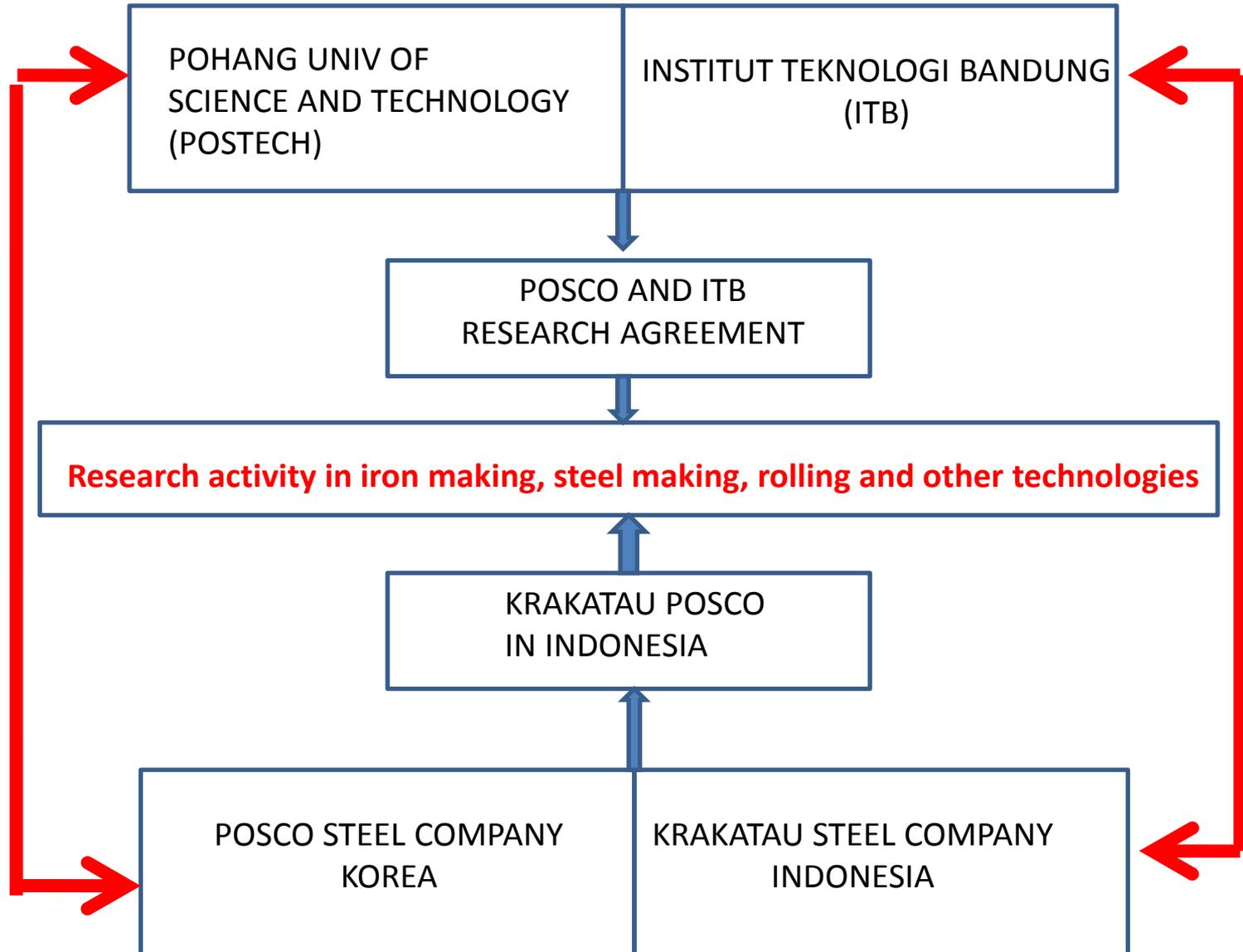


Richard B. Dasher  
Stanford Univ. and Tohoku Univ.





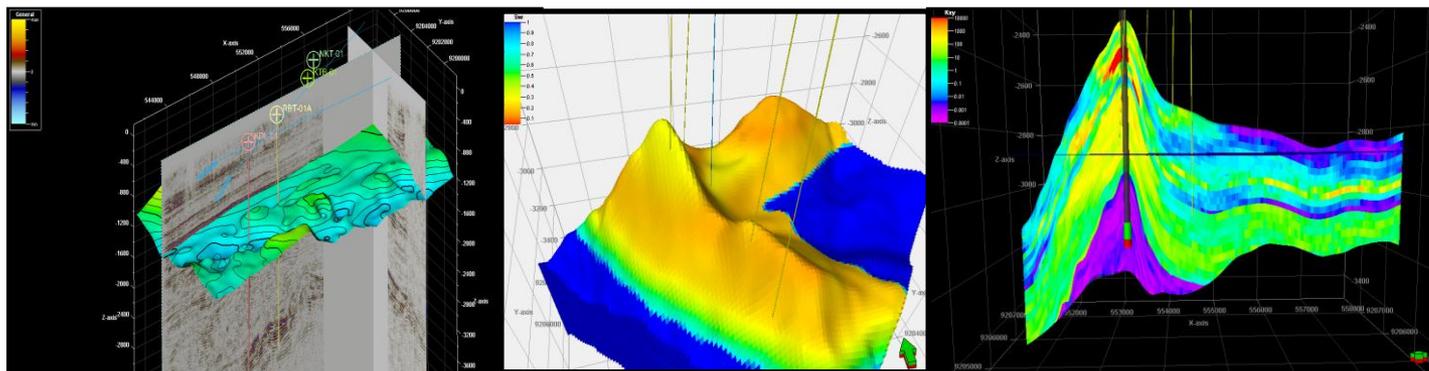






# ITB Research Activity for Low Carbon Society and Energy Security through EOR using CO<sub>2</sub> Injection

## GUNDIH CCS PILOT PROJECT (2013-2025)





# GUNDIH CCS PILOT PROJECT

## *History of the project*

A collaboration effort that is conducted between:

- Institut Teknologi Bandung, Kyoto University,
- Pertamina UTC and Pertamina EP

**SATREPS** (Science and Technology Research Partnership for Sustainable Development)

Supported by

- Japan International Cooperation Agency (JICA) and
- Japan Science and Technology Agency (JST)



ADB



Ministry of  
E&MR

Norway





## BIOFUELS/BIO-AVTUR

Apart from use as diesel engine fuel, vegetable oils also can be used as fuels for aviation gas turbine (**Bio-Avtur**). The collaborative research just started with Japanese Univ. (Hokkaido Univ.) under AUN/SEED-Net –JICA program and PT Pertamina.

