

# INTERNATIONAL RESEARCH COLLABORATION



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# Brief about DIPI

- Launched by Minister of Finance 30<sup>th</sup> March 2016 as the independent funding institution under the auspice of Indonesian Academy of Science (AIPI)

# - Mission:

- To improve the research ecosystem and promote the culture of excellence in research
- To provide a flexible, competitive and sustainable research grant
- To increase advance and qualified research
- To provide the research management services
- To become the trusted research funding institution

# - Current project:

- Joint call DIPI-MRCUK (6 research project)
- Joint call DIPI-RCUK (5 research project)
- Call secretariat for the 2<sup>nd</sup> call of SEA-EU JFS (9 research project)

# - Future project:

- Call secretariat for the 3<sup>rd</sup> R&D call and 4<sup>th</sup> Innovation call of SEA-EU JFS (25 June 2019)
- DIPI-LPDP : International Call for Proposal (joint call)

# International Research Collaboration Scheme

- > Indonesia UK research collaboration (DIPI-MRC, RCUK, Wallacea, dll.)
- ➤ Indonesia Belanda research collaboration (Ristekdikti NWO)
- ➤ Indonesia Perancis (Nusantara)
- > E-Asia (Multi-lateral)
- SEA-EU Joint Funding Scheme
- RISPRO-KI (RISPRO International Collaboration)

# What is the JFS

Funding of **Research & Innovation** Projects

**Bi-regional** & multilateral (2+1 / 1+2 Rule)

Open to all funding agencies from SEA and ERA

Thematic areas of calls are jointly agreed

Virtual Common Pot according to the **juste-retour** principle (no money cross border)

To date: **2 Joint Calls** for Proposals

# **EVALUATION**

- Eligibility check of the proposal according to the JFS rules
- Eligibility check by NCP according to national regulations
- Online evaluation by scientific peer reviewers (min. 2/proposal) (score 0-10)
  - ✓ Scientific/technological excellence and Innovativeness of the project idea
  - ✓ Potential impact and expected outcomes of the project
  - ✓ Management, transnationality and cooperation
- Review of proposal & peer reviews by 1<sup>st</sup> and 2<sup>nd</sup> reader from scientific council (assurance that proposals benefitted from fair evaluation)
  - A. Excellent
  - B. Good
  - C. Failed

# Strengths and benefits of the JFS

- ➤ It is impossible for countries, in particular smaller ones, to manage bilateral cooperation with every single partner country at national or sub-national level
- > The JFS is a perfect **umbrella** mechanism to facilitate Science, Technology and Innovation (STI) **Cooperation with a larger number of partners** at the same time
- Researchers can chose from a large network of partnerss when forming their consortia
- Researchers can form a comprehensive research program to solve national or global issues.
- > The JFS main strength is its **flexibility**: A certain agreement on **basic parameters** is required but funding happens according to **national regulations**

# 1st CALL: 2017

- Participation by 9 European and 5 SEA funding agencies
- Thematic areas: Health and Environment/Climate Change
- 10 projects selected for funding (success rate of 20 percent), up to 3.3 mio. Euros of funding

Title (Health)	Thematic area	Involved countries	Project budget
The emergence of Skin Ulceration Diseases in Edible Sea Cucumbers in a Global Change Framework	Emerging infectious diseases	Belgium , Thailand, France	178.085€
Novel Leptospirosis and Dengue Fever Vaccines for Thailand	Emerging infectious diseases	Thailand, Switzerland, France	361.254€
Plasmid Identification and Detection in South-East Asia - Enterobacteriaceae resistant to last resort	Anti-microbial drug resistance	Sweden, Thailand, Lao PDR,	306.000€
Carbapenems and Colistin		Vietnam	
Occupational risks for animal farmers to be colonised with animal-associated resistant bacteria in	Anti-microbial drug resistance	Switzerland, Thailand, France	354.628€
Thailand, impact on the faecal microbiot.			
A single component pentavalent Dengue-Zika vaccine preventing antibody-dependent enhancement	Emerging infectious diseases	France, Thailand, Cambodia,	276.600€
phenomenon		The Philippines	
Containment of antibiotic resistance - measures to improve antibiotic use in pregnancy,	Anti-microbial drug resistance	Sweden, Vietnam, Lao PDR,	307.000€
childbirth and children		Vietnam	
Title (Environment/Climate Change)	Thematic area	Involved countries	Project budget
Assessments of vulnerability of mature and secondary forests to climatic water stress in Southeast	Impacts of Climate Change on	Thailand, Sweden, France	346.130€
Asia	Ecosystems/Biodiversity		
Freshwater biotas of the insular biodiversity hotspots of Southeast Asia: diversity, biological states	Impacts of Climate Change on	France, Germany, The	179.620€
and uses	Ecosystems/Biodiversity	Philippines, Other 2x	
Monitoring and optimizing the design quality of mangrove restoration towards a sustainable coastal	Impacts of Climate Change on	France, Germany, Thailand,	245.022€
ecosystem management in Thailand and Mekong delta of Vietnam	Ecosystems/Biodiversity	Vietnam	
Strengthening rice breeding programs in Laos and Thailand and developing climate-resilient rice	Adaptation/ Resilience of food	Thailand 3x, France, Lao PDR	141.102€
varieties	production systems	2x	

# 2nd CALL: 2018

- Participation by 9 European and 7 SEA funding agencies
- Thematic areas: Health (infectious diseases) and Bioeconomy
- 9 projects selected for funding, up to 2.7 mio. Euros of funding

Title (Health)	Thematic area	Involved countries	Project budget
Moxistrong - Moxidectin for Strongyloidiasis	Emerging infectious diseases	Switzerland, Lao, Cambodia	214.680 €
Malaria & HIV drug resistance diagnostic devices - Development of paper based rapid diagnostic kits	Health devices development	Thailand, Philippine,	487.849€
for Malaria and HIV drug resistance detection using recombinase polymerase amplification		Indonesia, German	
PHIShINg - Paper based Hepatitis B Virus Electrochemical Immunosensors using AgNPs enhancement	Emerging infectious diseases	France, Thailand, Indonesia	49.000€
PNEUMOFLUIDICS - Development of a microfluidic chip protein array as a serodiagnostic tool of early	Emerging infectious diseases	Spain, German, Indonesia,	613.950€
detection of pneumococcal infection		Myanmar	
SEA-dog-SEA - Socio-Ecological Approach of Dog-borne zoonotic diseases in Southeast Asia	Emerging infectious diseases	France, Begium, Indonesia	160.000€
NEWTONIAN - New tools for the regional control of Asian liver fluke infection and associated severe	Emerging infectious diseases	Switzerland, Lao, Cambodia,	322.054€
liver diseases		Thailand	

Title (Bioeconomy)	Thematic area	Involved countries	Project budget
Irrigation4.0 - Strengthening agriculture 4.0 technology in a Thailand-Myanmar-Germany	Bio platform	Thailand, German, Myanmar	199.338€
collaboration: development of a plant-based irrigation platform			
BIOPLATE -Electroplating processes for biodegradable materials obtained from renewable biological	Bio material	German, Switzerland, Thailand	426.715€
resources			
Purge to Value - Development of value added products with low environmental impact from the	Bioeconomy	German, Begium, Thailand2x	253.455€
purge water of microalgae cultivation			

### 3rd CALL: 25 June - 18 Oct 2019

- Joint S&T Projects addressing basic research up to Technology Readiness Level (TRL) 4
- Participation by 5 European and 8 SEA funding agencies
- Thematic areas: Integrated Water Resources Management, and Nano Technology

# **Integrated Water Resources Management**

Climate Change in South-East Asia will cause more extreme weather events that may lead to drastic change in rainfall and runoff, water quality and supply as well as the viability of irrigation schemes according to the Intergovernmental Panel on Climate Change (IPCC). Research and innovative technology approaches on integrated land use and water management systems as well as science diplomacy especially for river basins and deltas would contribute to prepare for, mitigate and negotiate the effects of climate change. The nexus between the sustainability of river systems, transboundary water issues, food security, sustainable urbanization, energy and urban pollution in a context of climate change provides further scope for regional collaboration in research and innovation between Europe and South-East Asia.

# **Nanotechnology**

Nanoscience and nanotechnology are highly interdisciplinary and cut across industrial and commercial sectors to research and create new materials and devices with remarkable properties and functions. To name but a few, nanotechnology is being used in medicine, electronics, food, manufacturing and materials or water purification. Despite the fact that the technology has a high potential for both regions, research and innovation cooperation in nanotechnology has still a high untapped potential. Hence addressing setting research and innovation initiatives could bring new avenues for joining scientific and innovation capabilities from both regions.

# 4th CALL: 25 June – 18 November 2019

- Joint Innovation Projects addressing applied research and technology development (TRL ≥3)
- partnership between innovative SMEs and research performing institutions based in SEA and Europe
- Participation by 3 European and 10 SEA funding agencies

#### **Infectious Diseases:**

There is a long tradition of cooperation on infectious diseases between Europe and Southeast Asia and health research is a proven strength of both regions. Nonetheless, major obstacles exist to overcome the existing and increasing global health challenges including the need for a deeper understanding of diseases pathology and the socio-economic causes of the diseases and linked effectiveness of health intervention. There is a strong potential for collaboration in the area of antimicrobial resistance, as South-East Asia is affected by situations similar to Europe and requiring actions to which it can contribute.

# **Smart Cities:**

The sustainable development of urban areas is a challenge of key importance. It requires new, efficient, and user-friendly technologies and services, in particular in the areas of energy, transport and ICT. However, these solutions need integrated approaches, both in terms of research and development of advanced technological solutions, as well as deployment in the following areas:

- Smart Energy Systems
- Building and Space Sustainability

- Intelligent Transport and Mobility
- Societal Challenges: inclusion, education, health, tourism, etc.

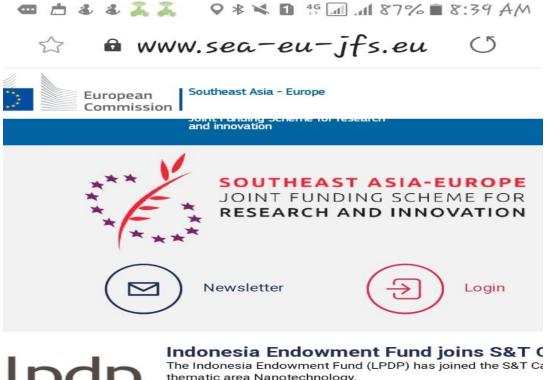
# PARTICIPATION INDONESIA'S FUNDING AGENCY:

### 1. RISTEKDIKTI:

- Integrated Water Resource Management (3<sup>rd</sup> Call)
- Infectious Diseases (4th Call)
- Smart City (4th Call)

# 2. LPDP:

- Nanotechnology (3<sup>rd</sup> Call)





thematic area Nanotechnology.

Posted on 23. Jul. 2019

#### Important

Indonesia Endowment Fund (LPDP) is now the second funding organisation from Indone icipates in the S&T Call. LPDP funds researchers from Indonesia in the thematic area Nar more information please read the call text and national regulations in our call section.













Letters of Intent sent to JFS Secretariat	May 2019
Pre-announcement of the Call for Proposals	Beginning June 2019
Launch of the Call for Proposals	25 June 2019
Deadline for proposal submission	18 October 2019 (3 <sup>rd</sup> Call), 18 November (4 <sup>th</sup> Call)
Eligibility check	21 October - 20 November 2019
Online evaluations	20 November – End January 2019
Review of online evaluation results by Scientific Council/ Innovation Council	Beginning February 2020
Scientific Council/ Innovation Council Meeting	End February 2020
Programme Steering Committee Meeting (back to back with Scientific Council Meeting)	End February 2020
Announcement of results to applicants	March 2020
Contract negotiations of each funding agency	March - July 2020
Start of projects	July 2020

0 = 4					
SEA	Brunei Darrisalam (UBD)	V	-		
	Cambodia (MOEY)	V	V	V	V
	Indonesia - Kemristekdikti - LPDP	- V	V -	V -	V -
	Lao PDR (MOST)	V	V	V	V
	Myanmar (MOE)	V	V	V	V
	Philippine - PCHRD - DOST -PCIEERD - DOST	- V	- V	V -	- V
	Thailand -NASTDA - TCELS	V -	V -	- V	V -
	Vietnam (MOST)	-	V	V	-
	Bulgaria (BNSP)	V	V		
	Czech Republic (CAS)	V	V	V	-
	Germany (BMBF)	V	V	-	-
	Swizerland (SNSF)	V	V	-	-
	Spain ((CDTI)	V	V	V	V
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# SEA – EU JFS: National Contact Point/Person (NCP)

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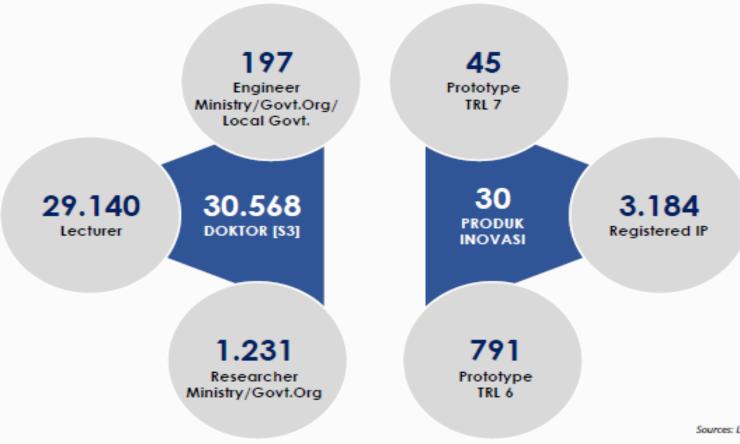
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# SEA – EU JFS: Partnering

- 1. Individual/institutional scientific networking
- 2. NCP
- 3. Partnering tool
- 4. Match making event
  - Nano teknologi (11 September 2019, Solo)
    - > 5 researchers from EU (on-going announcement)
    - Researchers from SEA (dissemination info done)
    - Presentation and poster exhibition
    - Discussion

Doctoral [\$3] Productivity





Sources: LAKIP 2016, Kemristekdikti, 2017

In 2017 alone, only 21,35% Research held in International Collaboration scheme in Indonesia, based on the number of joint Publication ...

source: www.scimagojr.com cited on 23 January 2019

# Common Standard / metrics



#### Impact Factor

Based on selective data from Web of Science DB

# Scopus'

#### 1. Quartile System

- Q1: 99-75th percentiles
- Q2: 74-50th percentiles
- Q3: 49-25th percentiles
- Q4: 24-0th percentiles
- 2. SJR (Scopus Journal Rank)



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# Research Qualities in Indonesia

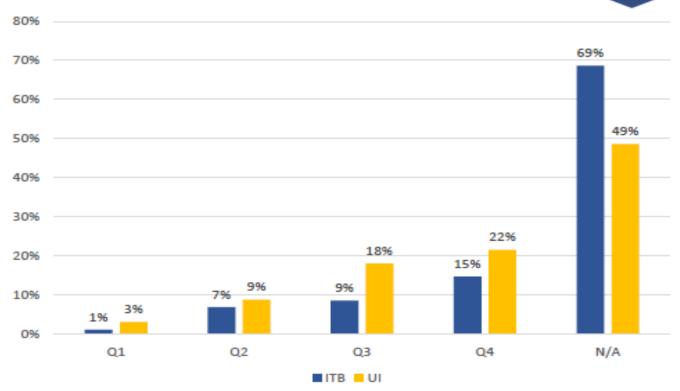
taking ITB & UI International Publications as an example



Quartile	Amou Docur		Percentages of Documents		
	ITB	UI	ITB	UI	
Q1	127	390	1%	3%	
Q2	763	1.099	7%	9%	
Q3	954	2.261	9%	18%	
Q4	1.638	2.701	15%	22%	
Undefined	7.635	6.107	69%	49%	
Total	11.117	12.558	100%	100%	

source: scopus.com cited on 23 January 2019 Based on source of publication

**Less than 5**% number of publication, from Indonesia top Universities **can reach Q1** level of Publication....



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# Publications & Citations: International Collaboration vs Domestic Collaboration study case UGM



International Collaboration

11,8 citations per publications

Domestic Collaboration **1,5 citations** per publications

V	Collaborative Publications		Citat	tions
Years	International	Domestic	International	Domestic
1954-1959	1	-	24	-
1960-1969	2	-	29	-
1970-1979	6	1	55	-
1980-1989	31	-	541	-
1990-1999	130	6	3.596	93
2000-2009	516	50	11.026	260
2010-2016	1.208	941	7.160	1.105
Total	1.894	998	22.431	1.458

source: Maryono & Surajiman, 2017

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# **Implementation**

#### 1. Funding Partners

- Netwon Fund
- DFAT
- NUFFIC
- JICA
- IFI, etc.
- 2. RISPRO's Partner (as "delivery partner")
  - ISF/DIPI
  - Top 5 Indonesian University
  - Non-Gov. Research Institute, etc.





"National Research Agenda 2017 – 2045"



# Objectives:

from Co-Authorship
to Co-Invention



#### 1. Publications (Accepted)

- Q1 Scopus Indexed
- 1st Author or Corresponding Author (1 publication per year)
- Co-Authorship (1 publication per funding contract)
- 2. Intellectual Property (Registered)
- 3. Prototype Technology/Product
- 4. Social Engineering Model

funded by

MAIP

delivered by

🄷 lpdp





# Thematic Areas:

- a. Health: genomic, cell therapy, digital health, etc.
- b. Advance material: nano technology, etc.
- c. Maritime: marine security system, marine bio-diversity, value added of marine resources, empowerment of coastal population

# Call scheme:

- a. open call (preparation for launching)
- b. joint call (seeking a partner process)
- c. multi lateral joint call (on going SEA-EU JFS call)



# **Feasibility of Funding Instrument**



- PI has min. PhD degree;
- Have MoU with research partner;
- Only 1 proposal for every research PI and member;
- Min. 3 articles for preliminary study (min. Q2 Scopus indexed)

#### Explanatory notes:

- The substantive assessment is for the entire team
- 1a → PI has at least 3 publications (as the first author) that are relevant and have been published in at least Q2 Scopus Indexed
- 2 & 3 are subject to reviewer discretion

Su	D	s	τ	а	ı	7	τ	ι	ν	е	
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No	Aspect/sub-aspect	Weighting Factor (a)	Score (b)	Final score (axb)
	Researcher quality	50		
	<ul> <li>a. Preliminary Studies which have proven in high quality journal</li> </ul>	50		
1	b. Researcher Quality (number of publication in Q1) Scoring range 1 = <2 Publication 2 = 2-3 Publications 3 = 4-5 Publications 4 = > 5 Publications	30		
	c. Researcher Quality (number of publication in Q2) Scoring range 1 = <2 Publication 2 = 2-3 Publications 3 = 4-5 Publications 4 => 5 Publications	20		
	Output	40		
2	<ul> <li>a. Strategic values of the product/technology (market value, level of locally manufactured content, reduction of import, value for money etc.)</li> </ul>	60		
	b. Intellectual property potentials	40		
	Scientific advancements	10		
3	a. State of the art;	60		
	b. Methodology	40		
	Total	100		

Description.

Scores 1, 2, 3, 4 (1 = poor, 2 = fair, 3 = good, 4 = very good)

Final score: weighting factor × score

Remarks: Passing grades is 75% (from maximum results)







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#### **Grant Details**

Multi years grant (3 years)
up to IDR6 billions in 3 years with IDR2 billions each year
The grant can be extended up to 6 years in total

- 95% Direct Cost (include 30% at most (Salary))
- Including travel grant up to IDR250 millions per year.
- 5% Indirect Cost

# What you cannot do with the grant

- · Buying land or property
- Buying operational vehicle
- Using for loans and mortgages
- Donating to others or lending others money
- · Other expenses outside the scope of RISPRO KI

#### Guideline for the disbursement of funds

#### IDR2 billions per years

- 1) 70% of total disbursement per year.
- 30% of total disbursement per year.

#### Disbursement criterias:

- The expenditure of funds is ≥80% of previous disbursement.
- The progress is satisfying.

#### **MER**

#### Monitoring

Once per year to monitor research progress

#### **Evaluation**

Once per year to decide the continuation of funding.

#### Reporting

- Progress report,
- The uses of funds statement, and
- Final report
- Either hardcopy or softcopy











#### OAS

#### Ownership

- The research team will manage the intellectual property.
- Sharing rights with research partner are possible.

#### Acknowledgement

- LPDP must be mentioned in every dissemination.
- LPDP logo must be visible in every presentation, promotion, and media coverage.
- LPDP must be written in the acknowledgement of every publication.

#### Sanctions

LPDP will stop the funding or even prohibit the research team to apply for proposal for 2 years if: (1) misappropriation and embezzlement of funds; (2) PI is conducting crime; (3) plagiarism; (4) the disbursement criteria is not reached; (5) the output does not meet.





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# What should we do?

- > Original idea (research question, methodology, innovativeness, novelty)
- > Think comprehensively (inter, multi discipline)
- > Partnering (national and international, WBS)
- Coordinator of the research project
- Proposal writing





# Indonesian Science Fund

Contact DIPI: info@dipi.id











