

Draft Summary Notes
e-ASIA Annual Board Meeting
September 9, 2022

Session 5: Discussion – Proposed topics for the future Call by DOST-PCIEERD

- Brief intro of DOST, including their Harmonized National R&D priorities
- Topics of Interest include the following:
 - Advanced Interdisciplinary Research towards Innovation
 - New fuel cell science and technologies
 - Solid state batteries for electric vehicles
 - Disaster Risk Reduction and Management
 - Transportation and flooding
 - Impact-based forecasting (e.g., pre-disaster preparedness)
 - Mapping, modeling/projections and instrumentation to observe and monitor extreme phenomena
 - Climate change and infrastructure resiliency (he also mentioned including strategies and approaches needed to adapt to climate change and resilient technologies)
 - Environment - greenhouse gas, carbon capture technologies, and assessment and innovation studies on marine litter
- Financing 12th e-ASIA Call: DOST-PCIEERD is committed to support three projects.
- Secretariat asked the presenter (Dr. Eric) to make it clear regarding overarching or individual call and he considers the connectivity with the other research councils to know which one will handle/support specific call and projects. There will be a need to coordinate the schedule of review with all relevant groups.
- JST-Mr. Sato asked for Dr. Eric's view on data science for use on materials science. Dr. Eric mentioned that they have supported materials science and that there was a previous workshop. They do have network on material (including computational) science and have supported projects through e-ASIA and other resources/program. They also support materials informatics (e.g., digital data) and digitalization of data.
- AMED-Mr. Noda commented on difficulty with interdisciplinary research and will need to point the level of research expected in the call (e.g., basic, general, atomic, etc.).
- DOST-Dr. Eric recognized the continuing challenge and the need for common goal to meet objectives and promote connectivity to pass on knowledge, recognizing the limited resources, but value the collaboration and partnership under e-ASIA.
- Prof. Kishi commented the need to decide the specific materials will be used, as well as the specific areas of materials informatics, and hope that there will be further discussion.
- Mr. Sato asked regarding linkage with industry and later on mentioned examples of that led to commercialization and other achievements.
- Dr. Eric responded to Mr. Sato's comment regarding achievements and networks that could be used to further promote program and could be spin off technologies and make

accessible, and introduce innovative technologies, include the input/consult scientists/researcher, industry, and policy makers.

- Water management with Japan and ASEAN to bridge researchers with industry to hopefully commercialize and could facilitate this kind of activity if of interest to MOs.
- Regarding interest in collaborating will be further discussed in session 7.

Session 6: Discussion – Proposed topic for future Call by JST

- Presentation by Mr. Sato on the “Discussion on new research collaborations in material field”.
- He provided background on Cyber Physical System and Industry 4.0, including the application of inter-connectivity with digital manufacturing. Mr. Sato provided the example of additive manufacturing with informatics, and that there are needs for efficient and integrated exploration of synthesis process of target materials for additive manufacturing. This could be an area of collaboration by researchers in e-ASIA countries and could have broader application.
- Mr. Sato mentioned the ongoing projects under “Material Informatics” (2022-2024) and that they would like to further expand them to the manufacturing process.
- Next, he opened up the discussions to talk about the following, as well as if there are any interest in potential collaboration:
 - What are the challenges in material development?
 - What are the challenges in manufacturing the developed materials?
 - Has the manufacturing process been DX (digital transformation)?
- Dr. Eric mentioned challenges included resources available or locally sourced that that are not developed to scale and not additive manufacturing, and the need to make sure they are sustainably sourced and consider alternatives with working with others in the region. Localization and sourcing of indigenous materials could be areas of collaboration.
- Prof. Kishi commented size, shape, and equipment with additive manufacturing and methodology, and suggested to further promote additive manufacturing in e-ASIA.
- Dr. Eric further addressed the questions posed by Mr. Sato including adopting adaptive manufacturing for specific applications, such as in medical use (e.g., prosthetics) but often expensive, not accessible or sustainable. There are challenges with digital transformation with the monitoring of the process and quality and safety in production and there is a drive towards using sensors/satellites for consistency and adaptive type of system (adapt to data) and may not need human intervention in the process if there are sensors to detect and adjust to produce consistently. He posed whether we would look at feedback loop at systems level?
- Mr. Sato mentioned scale up is key to manufacturing process and could apply digital and sensors for more efficiency and agrees with Dr. Eric.
- Secretariat asked if there is interest in collaborating on a call. Mr. Sato suggested that the proposals by Indonesia and the Philippines could be combined and further discussed later.

Session 7: Discussion – 12th Call for Proposals

- Secretariat started with a brief introduction and showed a spreadsheet to summarize what the MOs would like to include. The suggestions are quite diverse and try to categorize into 5-6 groups with some similarity and MOs are always welcome to give their input.
- One overarching field to include health, advance interdisciplinary, environment, disaster, agriculture, etc.
 - Under this there are two topics: 1) Climate Change and Health and 2) Medical Devices, precision medicine, genomic, telemedicine and AI for Health [add MOs interested]
- Stand-alone areas proposed:
 - Materials – Digital manufacturing and additive manufacturing: JST, DIKBUDRISTEK, and DOST-PCIEERD
 - Environment – MOST (MY), DOST-PCIEERD, NRCT and PMU-B
- Secretariat suggested to be more inclusive.
- Other topics suggested by 1-2 MOs
 - Disaster – Disaster: DOST-PCIEERD
 - Alternative Energy - Alternative Energy
 - DIKBUDRISTEK and MOST but different topics
 - Health
 - Block chain technology for healthcare system – MOST (MY)
 - Brain R&D (DOST-PCHRD)
 - Cancer (tobacco control) NCI
 - Materials – Materials: MOST (MY)
 - Advanced Interdisciplinary
 - Telecommunications: MOST (MY)
 - Transportation and Flooding: DOST-PCIEERD
 - Agriculture: DOST-PCAARRD
 - Proposed topics could potentially be included in the other topics
- Secretariat opened it up for discussion. Comments included:
 - DOST-Dr. Eric commented that alternative batteries could be under energy but interested in process and development, which is under materials to create storage and battery space; and brought up how could this be compatible with additive manufacturing. Secretariat noted that there may need to be additional discussion regarding this topic.
 - Mr. Sato commented that environment topic (e.g., smart city) might be combined with overarching Climate Change, which then JST could also join. For example, greenhouse gas inventory could be included in overarching call.
 - NHMRC commented considering environment issues whether to include mitigation and adaptation, recognizing the challenge and the need to balance having a broad scope with focus and specificity.
 - NIAID commented that topics were developed before workshops; perhaps the summary from the workshop could help inform the Call and amend the focus of

the call with the additional information in mind and the discussion from the BM yesterday.

- Provide draft summary to the MOs to further give insights for the call.
- Secretariat will provide information on the MOs topics of interest. The target is to launch an overarching call on Climate Change and feel free to provide input.
- PMU-B commented that they see a lot of overlap; on Health side, they are interested in precision and personalized medicine, including aging, monitoring and prevention; AI – bioinformatics and biomarkers; Materials and engineering – interest in batteries for EV, decarbonization and carbon capture and utilization. They are interested in overarching and/or stand alone. Regarding AI, Indonesia also agreed. Decarbonization and carbon capture and utilization can also be under environment. DOST-Dr. Eric agreed, and it is part of mitigation strategy, and also understand how this would benefit the region.
 - For Health, PMU-B will be discussed later with Indonesia. Secretariat could assist with facilitating a follow up discussion.
- DOST-Dr. Eric noted that Transportation and Flooding, initially under Advanced Interdisciplinary, could be moved and more appropriate under Disaster. He also suggested that Capacity building and Multiplication of climate resilient seed could be under Agriculture. MOST-MY will look into it and inform the Secretariat.
- NRCT commented that their suggestion of low carbon society (environment) includes mitigation and adaption, and they could also cover climate change and health topic because there is overlap but they prefer to keep it under the Environment call with an expanded scope.
- Secretariat suggested to review the discussion of the output. The overarching climate change call, initially draft started by NHMRC – Health, PCIEERD – Disaster, NIAID – infectious diseases, and NCI – cancer, and other MOs welcome to give their input. For Materials, JST-Mr. Sato volunteered to initially draft call. For Environment, with diverse interest from MOs, PMU-B volunteered to draft the call.
- For Disaster, we will wait for other input from other MOs.
- For Alternative Energy, Secretariat asked MOST-MY if they could expand their interest and they responded that this could be further discussed later.
- For stand-alone Health Call, no comments from the MOs.
- For agriculture, PCAARRD commented that for nanobiosensor for detection of pesticides and residues and for development of nanosensors for monitoring fruit quality that they prefer to keep these topics under this field or focused on agriculture.
- NCI commented that tobacco control has a broader impact on chronic, non-communicable and infectious diseases, and morbidity and mortality; will wait for other MOs to participate.
- MOST-MY will consult with their experts regarding the proposed topics in the field of Materials.
- AMED wanted to confirm if there will be a stand-alone non-Climate Change related infectious diseases Call. NHMRC is interested in infectious diseases

broadly, but due to limited resources, prefer to include infectious diseases in overarching climate change call.

- Secretariat will try to summarize:
 - Overarching call centered on Climate Change that includes multiple fields and appreciate the MOs who volunteered to draft the Call. Secretariat will facilitate follow up discussion calls
 - In the field of Materials, JST, Indonesia, and Philippines will join together to develop a Call and JST will lead in drafting the call.
 - In the field of Environment, PMU-B will lead in drafting the call.
 - In the Other Topics suggest, we will wait/standby for MOs to express interest.
- Dr. Eric suggested to the secretariat to share the list of proposed topics and will need to be discussed internally within their organization. Secretariat will share draft summary and excel spreadsheet to MOs as early as possible, and they will facilitate any needed discussions.
- Secretariat showed the tentative schedule for 12th Call for Proposal, particularly noted the * to be mindful to keep the deadlines. Schedule is similar to as last year (i.e., annual timeline). Dr. Eric mentioned that overall, the schedule is compatible with them but requested if the call deadline to be April 1, 2023, but it is a Saturday. They will check if there are other factors to consider with the deadline.

Tentative Schedule for 12th Call for Proposals

Event	Schedule for 12 th call
Setting up call topics	End of Sep. 2022
Call Guideline preparation	Oct. - Nov. 2022
Submission of Letter of Intent	End of Nov. 2022*
Launch of Call for Proposals	Mid. of Dec. 2022
Closing of Call for Proposals	End of Mar. 2023
Eligibility Check by MOs	Beginning of Apr. - Mid. of Apr. 2023*
Review by MOs	End of Apr. - Beginning of Aug. 2023*
Joint Review Meeting	Aug. - Sep. 2023
Announcement to applicants	End of Nov. 2023
Contract preparation	Dec. 2023 - Feb. 2024
Start funding	Jan. - Mar. 2024

* Due dates that need to be met

- MEXT asked about the discussion regarding the expanding the timeline of the Call scoping as discussed yesterday. Secretariat mentioned that this could be considered in the future.

- Secretariat clarified that the Letter of Intent is a standard request to be submitted by MOs.
- Dr. Eric asked if the researchers will be requested to submit a letter of intent/interest from them that could be discussed internally within their organization. Secretariat could further discuss if this administrative matter (i.e., researcher to send a brief description of proposed research) is relevant to MOs and could consider if this will be included as an option.
- DOST-asked if there will be a workshop incorporated in the schedule. Secretariat mentioned that the example of the Climate Change and Health Workshop was part of the scoping exercise and encourage MOs, particularly lead MOs, could consider organize such workshop to attract quality research proposals. DOST hoping that there would be a coordinated workshop, which would be helpful to explore collaborations and find partners (such as the Digital Cities Workshop). Secretariat reiterated that workshops, though not mandatory, are encourage and welcomed. DOST Dr. Eric suggested to have a conference to inform/briefing session to prospective research applicants to further inform and elaborate on the Calls for proposals. Secretariat mentioned that we will work together to make these Calls happen.

Session 8: Avoiding negative impact on researchers

- Secretariat emphasized the necessity for adding more details in guidelines and keeping scheduled deadlines.
- The Secretariat provided examples or cases and lessons learned and requested to please cooperate to meet unified schedule as much as possible, and in case if MO is unable to meet deadline to contact the Secretariat.

Points	1 - Necessity for adding more details in the Call Guideline
<p>1. Necessity for adding more details in the Call Guidelines.</p> <p>2. Necessity for your cooperation to meet the unified schedule.</p>	<p>Case 1:</p> <p>There were few 'ineligible' results by DOST in the 11th Call.</p> <p>The reason is 'the proposal does not fall within the priority research topics of current call'.</p> <p>The Secretariat realized there were no specified details about its priorities in the Call Guideline.</p>
<p>1 - Necessity for adding more details in the Call Guideline</p> <p>Good examples:</p> <p><u>NSTDA - 11th Call in the field of Health Research</u> NSTDA will provide support for 1 project on the topic of "Antimicrobial Resistance" on the subtopic as following:</p> <ul style="list-style-type: none"> • Development of new innovative classes of antimicrobials that are efficacious, rapid and cost effective • Revisiting older, but clinically useful antimicrobials (i.e. no longer manufactured or marketed) • Enhanced therapeutic alternatives to antimicrobials <p><u>NRCT - 11th Call in the field of Advanced Interdisciplinary Research</u> NRCT will support only for the two areas of Transport and Water/ Food. The topics are as the followings.</p> <ul style="list-style-type: none"> • A Smart Commuter-Supported System using AI, AR, VR, and IoT • A Smart Monitoring System for Large Public Infrastructure for water and food 	<p>1 - Necessity for adding more details in the Call Guideline</p> <p>Request:</p> <p>Please indicate as much details as possible in the Call Guideline.</p> <ul style="list-style-type: none"> - To avoid wasteful steps for researchers - To avoid losing our credibility

2 - Necessity for your cooperation to meet the unified schedule

Case 2:

DOST determined to disapprove an already-selected project (in the 10th Call, field of Environment) after 6 month of making the public announcement.

This PI had to continue participating in the project by its own budget/recourses.

2 - Necessity for your cooperation to meet the unified schedule

Case 3:

2 MOs submitted the review results right before the Joint Review Meeting.

This made it impossible for other MOs and the Secretariat to make the advance preparation and internal discussion.

2 - Necessity for your cooperation to meet the unified schedule

Request:

Please cooperate with us to meet our unified schedule as much as possible.

and

In case you become unable to meet your internal process with our agreed e-ASIA call schedule immediately

Voting Session

- Secretariat summarized the Annual Activity Report, including the 10th ABM, 10th Joint Call for Proposals and noted number of proposals selected/submitted for each Call; for 11th Call included workshops on Digital Cities and Climate Change and Health, and 10th Anniversary Event.
- For Health Research, 17 proposals – 2 ineligible, 8 failed/not meet three conditions, 1 dropped, and 6 remaining proposals (with two of them pending NSTDA who will confirm by September 19)
- For Advanced Interdisciplinary: 3 failed and 2 selected
- For Alternative Energy, the review will be done after ABM; 17 proposals submitted - 4 ineligible, 10 failed and only 3 remaining
- **MOs Voted on the following:**
 - Tentative Schedule for 12th Call: All agreed
 - For Advanced Interdisciplinary, MOs involved voted regarding the two proposals selected: All agreed
- NIAID-Gray commented to have very clear guidelines to assess eligibility and review criteria. Only language in the call can be used to assess the eligibility and review criteria, including specific language of MOs additional requirements (including what would make it ineligible) and who/how will the application be reviewed, particularly now with overlapping interest, should also be included specifically in the Call language.

- DOST Dr. Eric commented also whether to include specifically what is not within their purview or outside their mandate. There are overlaps with fields or how they could be interpreted (e.g., materials-alternative energy, etc.).
- Secretariat to make Call eligibility/ineligibility and review criteria and process as transparent as possible to avoid negative impact on researchers.
- Secretariat summarized overarching and materials Calls and led by MOs noted in the spreadsheet and for other topics we are waiting for further discussion or other MOs input.

Closing

- Announcement: NHMRC Australia will host 2023 ABM. With the two-year pandemic, Vietnam requested to postpone their role as host.
- NHRMC is still determining location and time around September. They joined in 2016 and welcome hosting the next ABM.
- Secretariat thanked everyone's hard work with hybrid meeting and so many MOs despite of the time differences, participating in-person and online, and closed the meeting.