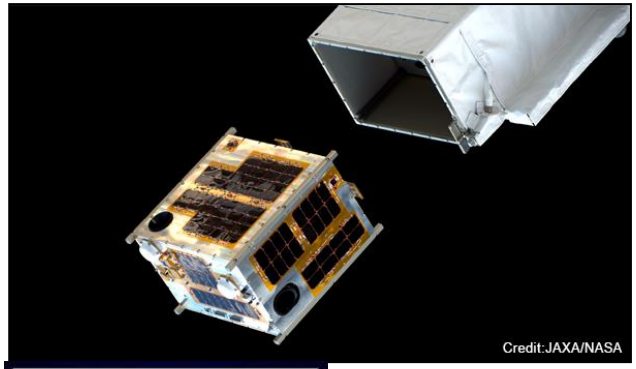
CALL FOR PROPOSALS 2018

Department of Science and Technology

PHILIPPINE COUNCIL FOR INDUSTRY, ENERGY AND EMERGING TECHNOLOGY RESEARCH AND DEVELOPMENT

PCIEERD's Alignment to National Socio – Economic Agenda



Optimize *R&D*

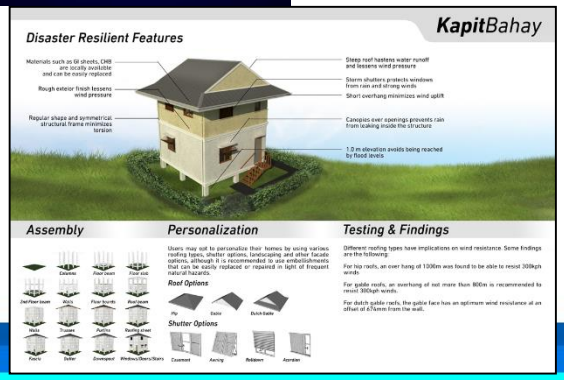
Continue to *address reduction of risks* from natural disasters

- Promote S&T
- Increase Competitiveness
- Promote rural & value chain development
- Invest in human capital development

Contribute to *hastened countryside development*

Stimulate *technology-based economic activities*

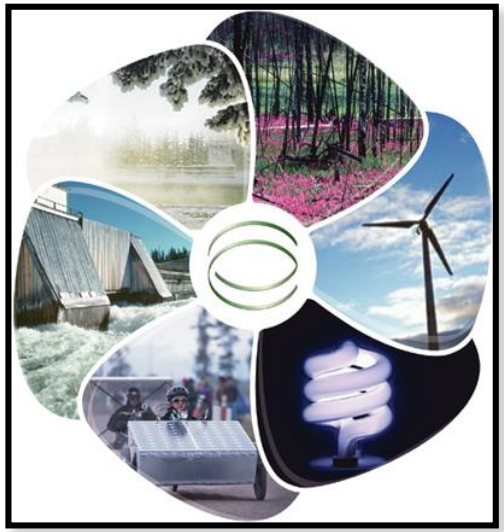
noah.dost.gov.ph



R&D Priorities for 2018

PCIEERD R&D Priority Thrust

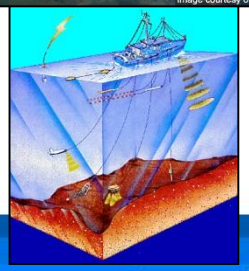
Appropriate Technologies for Industry Competitiveness



Sustainable Energy

Sustainable Mass Transport

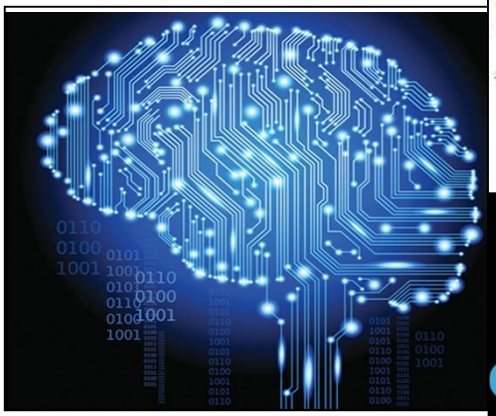
Environment, Climate Change & Disaster Risk Reduction



Appropriate Technologies for Industry Competitiveness

Electronics, Semiconductor and ICT Industry

- ❑ Artificial Intelligence for Industry, Transport and Education Application
- ❑ Big Data Analytics (Government Data Integration)
- ❑ R&D for Creative Industries



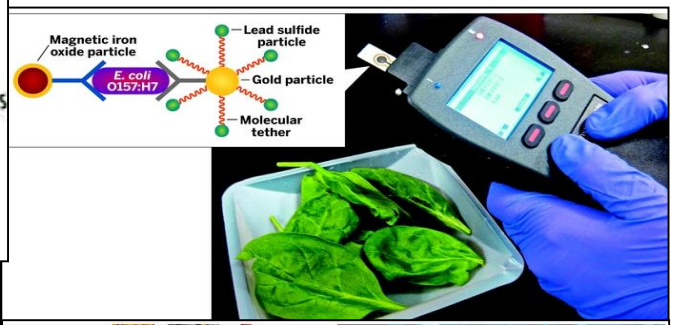


Photo Credit to: dtc-wsuv.org; libdemvoice.org; bigdatasciencetraining.com; egr.msu.edu; psireland.ie

Appropriate Technologies for Industry Competitiveness

Mining and Minerals Industry

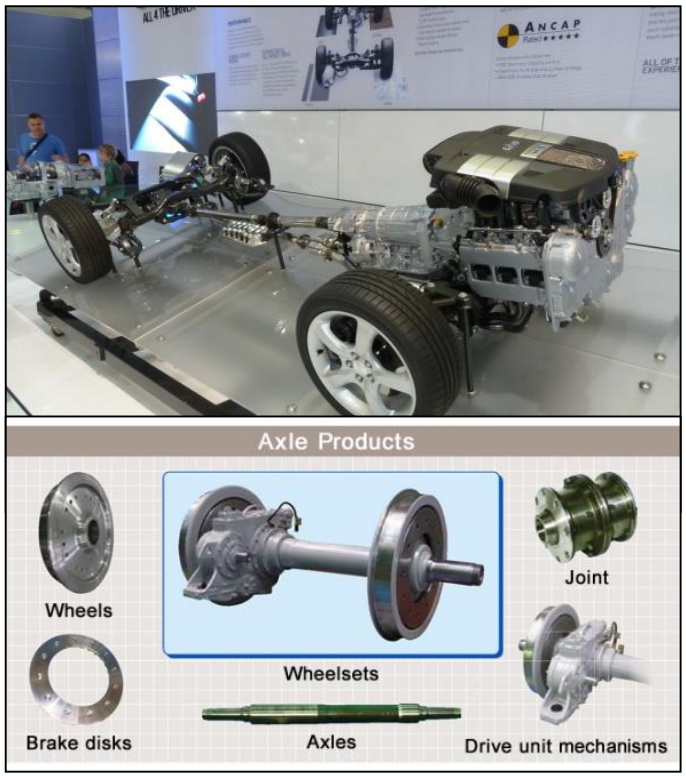
- ❑ Development of Value-Adding Technologies for Copper, Iron, Chromite, Nickel, Chromium and Gold Minerals for Industrial Application
- ❑ Geological Assessment of Untapped/Undiscovered Minerals (i.e. Black Sand and Trace and Rare Earth Elements)
- ❑ Green Mining Technologies
- ❑ Clean Metallurgical Processes
  - Hydrometallurgical
  - Pyrometallurgical
  - Electrometallurgical

Photo Credit to: mining-recruitment-jobs.com; 911metallurgist.com

Appropriate Technologies for Industry Competitiveness

Metals & Fabrication Industry

- Cost Efficient Manufacturing Processes and Equipment to Increase Local Content of Aerospace, Automotive and/or Train Parts and Components
- Design, Development and Prototyping of Food Processing Equipment for Micro, Small and Medium Enterprises (MSMEs)



Appropriate Technologies for Industry Competitiveness

Food Industry

- ❑ Baseline Studies on Microbiological and Chemical Hazards on Food
- ❑ Science-Based Quality Assurance System for Priority Products (e.g. fresh and processed banana)
- ❑ Value-adding of Fishery By-Products (e.g. fish oil, chitin, collagen)

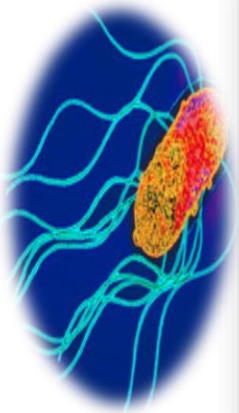
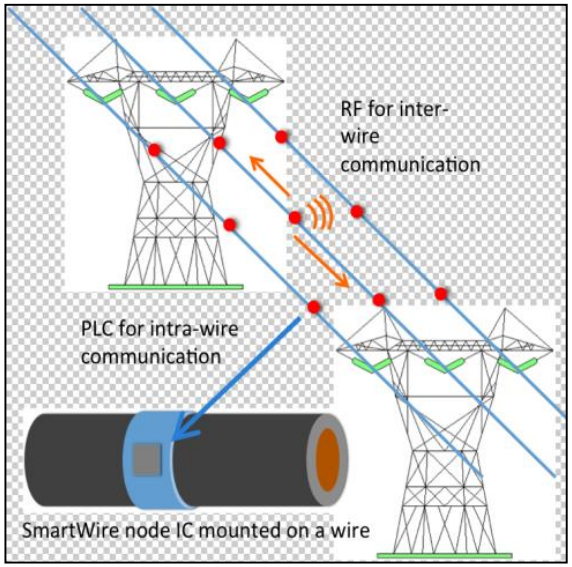


Photo credit: http: www.bworldonline.com; www.philstar.com, BIOTECH-UPLB

Sustainable Energy

- Smart Energy Efficient Systems for Low Carbon Economy
  - Efficient hydrokinetic energy harvesting systems
  - Sustainable urban waste to energy conversion
- Renewable Energy (RE) Systems
  - RE technologies and business models integration for sustainable off-grid power supply
  - Thermo/electro/biochemical hydrogen production
  - Solar power concentrators (SPC)
  - Solar heating and cooling (SHC)



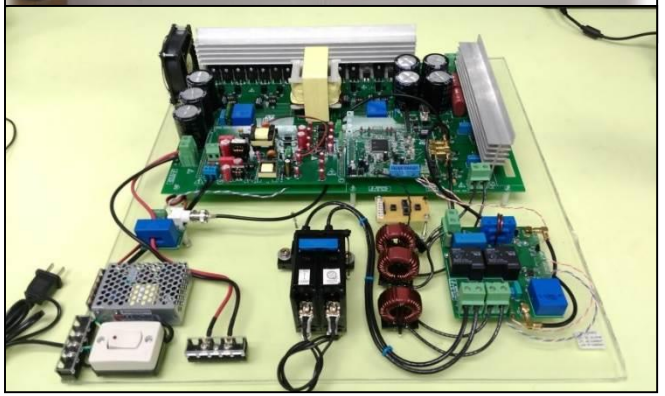


Photo Credit to: Smartwire Program; Wind Resource Assessment for Wind Power System Project; Development of Grid Tie Inverter Project

Sustainable Mass Transport

- *Intelligent Transport System*
  - Vehicle-to-vehicle connectivity and information sharing
  - Road infrastructure-to-vehicle
  - Automated Parking Space Detection System
  - Harmonized RFID/WSN using multi-path transmission protocol & cognitive frequency
  - PUV tracking for fleet management & driving behavior

- *Sea Transport Research on Marine Vessels*
  - Standard sea-worthy hull design using alternative indigenous lightweight materials
  - Navigational Route Capacity Measurement & Analysis for inter-island connectivity

- *Mass Transport Systems (Train, PUV)*
  - Prototype double decker bus development and fuel efficiency analysis in compliance to Euro 4 Standards
  - Development of Positive Train Control (PTC) components for railway system

Photo Credit to: DOST and PCIEERD funded Transport Projects

Environment, Climate Change Adaptation and Disaster Risk Reduction

- Water Environment R&D
  - Wastewater Management
- Air Quality R&D
  - Air Pollution Control and Management
- Solid Waste Management

Photo Credit to: sfexaminer.com

Environment, Climate Change Adaptation and Disaster Risk Reduction

- DRR/CCA Proofing Infrastructure Systems and Techniques
  - Urban infrastructure rainfall inflow-outflow modeling and early warning systems
- Hazards and Risk Assessment Tools and Systems Program
  - Liquefaction Hazard Assessment
- Instrumentation for early warning, monitoring and rapid assessment
  - Forecast Based Financing and Weather Based Insurance Mechanism
- Marine Geology and Oceanography Program
- Human Security
  - R&D for UAV, Airborne and Space Technology

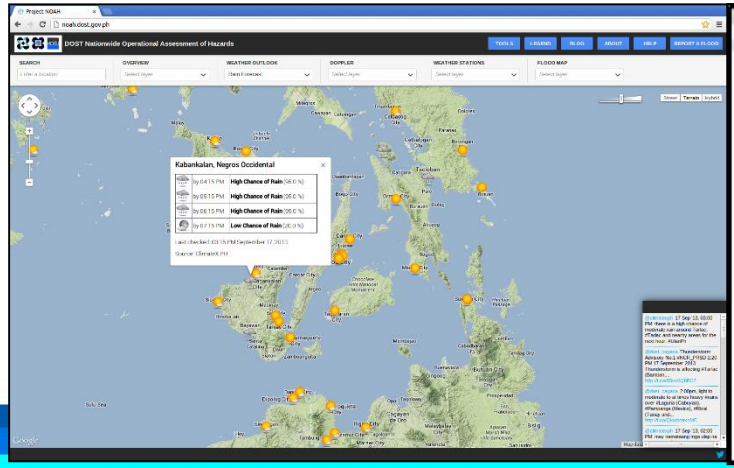
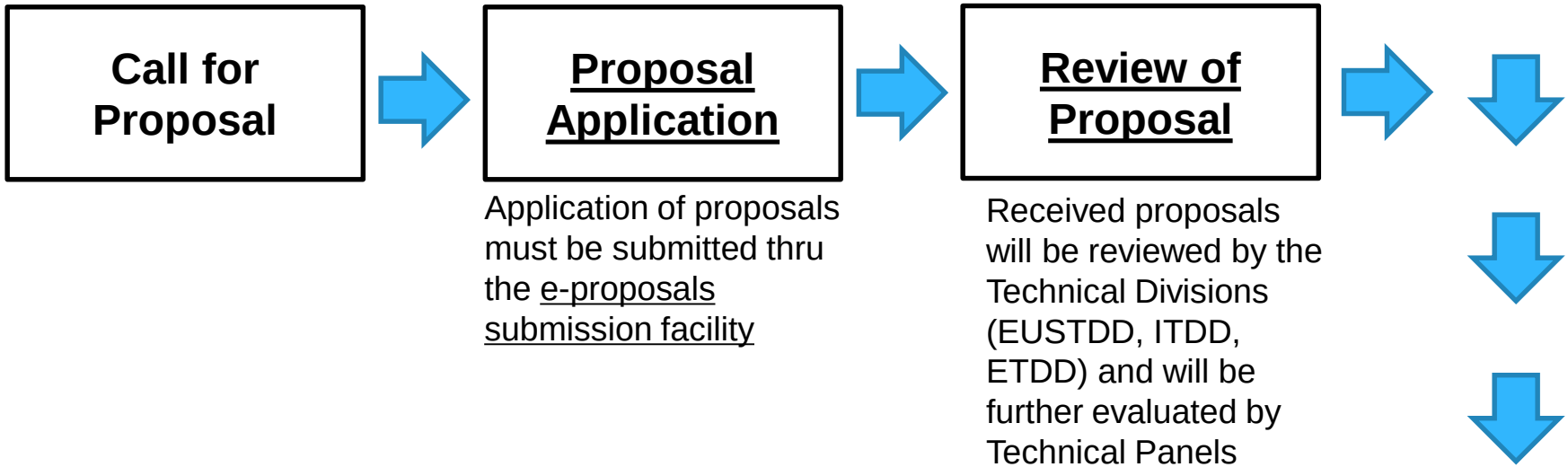


Photo Credit to: Denel Dynamics; Proj. NOAH Blog; hubpages.com

Guidelines in Proposal Development

Project Proposal Process



Project Criteria

The proposal should be able to create a value by providing a **Solution** to **Needs**, and by Maximizing Its **Benefits** through **Differentiating** with Competing Products or Technologies

- Identify **Needs**
- Provide **Solution**
- Make **Differentiation**
- Maximize **Benefits**

The following should be clearly discussed in the background and rationale of the proposal

Important Needs

- The proposal should clearly identify and discuss the specific needs/problems to be addressed
- The proponent should have a clear understanding of the needs/problems
- Is it just a perceived need or observed need or based on consultations?
- Do needs link to business opportunities?
- Target market or beneficiaries (size, growth, players, segments)?

Compelling Solution

- What is the proposed solution?
- Would it satisfies important needs? How would it satisfies the needs?
- Could it solve the entire problem or would it address a critical part?
- What are the limitations?
- Present the solution in a form that could be visualized graphics, mock-ups, frameworks

Make Differentiation

- Compare with competitive or substitute solutions/technology, what is the differentiation of what is being proposed?
- What are its advantages? Its Unique features?
- Can this differentiation creates greater value than that of existing?
- Can it reduce cost? Increase efficiency, provide better performance?
- Can it result to special skills or exceptional services?
- Can it provide new information
- Can it be a technology or an invention comprising of new design, approaches; use of new materials
- Can they be protected or protectable by patents, copyrights, trademarks?

Maximum Benefits

- What are the benefits that can be perceive/receive after using the solution?
- Quantify the benefits if possible.
- What would be its impact to the target market/beneficiaries?

Expected Outputs & Outcomes

OUTPUT – an activity, effort, and/or associated work product related to project goals and objectives that will be produced over a period of time

- May be qualitative or quantitative but must be measurable

- Publications (in recognized scientific journals)
- Patents (tangible measure of innovation)
- Products/ Process (commercial value of outputs)
- People Services (increase in the scientific workforce)
- Places (facilities that enable increased 4Ps output)
- Policies (adopted science-based guidelines)

OUTCOME - the result, effect or consequence that will occur from carrying out a project or activity that is related to programmatic goal or objective

- May be environmental, behavioral, health-related, or programmatic in nature, but must be quantitative

- Contribution to 10 Point Socio – Economic Agenda; DOST 12 Point Agenda; and Harmonized National R&D Agenda

Funding Award Information

Fund Information

Total Estimated Funding ≈ Php 1.4B

R&D Award ≈ Php 1,000,000 to Php 50,000,000
(subject to availability of funds and the quality of proposals received)

Deadline of e-Proposal Submission

- Capsule Proposal : **March 31, 2017**
- Full – blown Proposal : **June 1, 2017**

through PCIEERD-DOST **e-Proposal Submission Facility**

Funding

Funding portions or phases of Proposed Projects

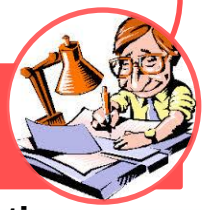
Funding Award Information

Anticipated Number of Projects	Approximately **100 Research Agreements** (PCIEERD-DOST **reserves the right to make additional project grants** under this announcement **if additional funding becomes available after the original selection**)
Commencement Period for Approved Project	**January 2018**
Funding Source	Research agreement under the PCIEERD & DOST Grants-In-Aid (GIA) Program

Eligibility Information

Eligible Entities

1. Any Filipino, public or private entity with proven competence.
2. Public & Private Universities & Colleges
3. RDIs, R&D Consortia
4. Non-profit laboratories
5. Other Public/Private non-profit S&T institutions in the Philippines

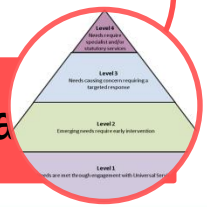


Cost Sharing & Matching

1. Applicants should provide at least 20% counterpart funding
2. Only eligible & allowable costs may be used for counterpart fund/in-kind contribution

Threshold Criteria

Proposals must:
1.Be from Eligible Entities
2.Demonstrate S&T Advancement
3.Contribute to the 10 Point Socio – Economic Agenda; DOST 12 Point Agenda; and Harmonized National R&D Agenda
4.Substantially comply with the Proposal submission, instructions, & requirements
5.Be received by PCIEERD on or before the submission deadline



Note: Non-profit organizations engaged in lobbying activities are not eligible to apply.

Evaluation Criteria

A. <u>Evaluation Criteria</u>

- ✓ Met the threshold criteria
- ✓ Directly and Explicitly addressed the criteria as part of their Proposal submission
- ✓ Rated using points system

B. Review and Selection Process

- A review team will evaluate each proposal using the evaluation criteria

C. Other Factors

- The Approving Authorities of PCIEERD will make final funding decisions.

Award Administration

A. Award Notices

1. **Successful applicant** will be notified via telephone, fax, electronic or postal mail by **December 2017**.
2. The Award Notice signed by the PCIEERD Executive Director is the authorizing document and will be used for the execution of project through MOA.
3. Unsuccessful applicant(s) will also be notified via electronic or postal mail by **December 2017**.

B. Administrative and DOST-GIA Policy Requirement

- The Grants-In-Aid award shall be governed by the DOST GIA Guidelines.

C. Reporting Requirement

1. Quarterly Progress Reports
   a. Summary of Technical Progress
   b. Planned Activities for next quarter
   c. Summary of Expenditures
2. Final Report
   - Shall be completed within 90 calendar days upon completion

2018 CFP Timetable

Activities	Dates
Announcement of Call for Proposal	February 15, 2017
Closing Date for Submission of capsule Proposal	March 31, 2017
Notification of pre-selected Capsule Proposals	Before April 30, 2017
Closing date of e-proposal submission of “Full – blown Proposal”	June 1, 2017
Notification of Successful Applicants	Before December 31, 2017

Letter of Intent & Endorsement

CARLOS PRIMO C. DAVID, Ph.D.
Executive Director
Philippine Council for Industry, Energy and Emerging Technology Research and Development (PCIEERD)
Department of Science and Technology (DOST)
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PSI

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