

**Republic of the Philippines**  
**PHILIPPINE INSTITUTE FOR DEVELOPMENT STUDIES**  
**18/F Three Cyberpod Centris, North Tower,**  
**EDSA cor. Quezon Ave., Quezon City**  
**Telephone No. 877-4043**  
**Website: <http://www.pids.gov.ph>**

**INVITATION TO SUBMIT RESEARCH PROPOSALS**

1. The Philippine Institute for Development Studies (PIDS) invites all eligible consultants to submit proposals for the provision of consultancy services entitled “*Preparing the Philippines for the Fourth Industrial Revolution: A scoping study*”
2. The project aims to analyze the technological landscape and emerging technologies that are likely to affect Philippine industries directly or indirectly; examine the degree of resilience of the country’s industries in light of the risks presented by the mainstreaming of disruptive technologies; and identify the implications of the Fourth Industrial Revolution (FIRe) for the country’s human development and trade and industrial strategies. The consultant, under the guidance and technical oversight of a PIDS Senior Research Fellow, shall be the co-principal investigator for the study, and is expected to prepare a review of the literature, lead focus group discussions/key informant interviews, and co-author discussion paper and policy notes covering the results of the study.
3. The approved budget for the abovementioned research project is PhP450,000.00 and will be implemented for approximately 6 months.
4. To be registered and eligible to be included in the PIDS’ database of research consultants, interested proponents must submit the following documents:
  - a) PhilGEPS registration number
  - b) Tax Identification Number (TIN) and Curriculum Vitae (for individual consultants)
  - c) Filled-up accreditation form/registration form\*, which includes information on completed contracts and all on-going government and project contracts, including contracts awarded but not yet started.
  - d) Notarized Affidavit\* containing: statement of Filipino citizenship and supporting documents, i.e., birth certificate, passport, or other documents relative to citizenship; statement of not “blacklisted” or “barred” from bidding by any government agency, office, or corporation, and authority to verify documents.
  - e) *Registered professional authorized by appropriate regulatory body to practice those profession or allied professions, if applicable.*
  - f) BIR Certificate of Registration (for individual consultants)
  - g) DTI/SEC/CDA registration, and Mayor’s Permit (for consultancy firms)
  - h) *Audited financial statements for the immediately preceding calendar year stamped “received” by BIR or its duly authorized/accredited institutions (for consultancy firms)*
  - i) Income/Business Tax Return

\*Registration of qualified proponents is on-going. Please secure copies of the registration form and affidavit from the Project Services Department c/o Jan Michael M. Oseo at 18/F Three Cyberpod Centris – North Tower, EDSA cor. Quezon Ave., Quezon City. These documents may also be requested via email at [joseo@mail.pids.gov.ph](mailto:joseo@mail.pids.gov.ph).
5. The Terms of Reference (TOR) of the study, the PIDS Technical and Financial Proposals template, and other pertinent documents may be secured by consultants from the Project Services Department c/o Jan Michael M. Oseo at 18/F Three Cyberpod Centris – North Tower, EDSA cor. Quezon Ave., Quezon City, or via email at [joseo@mail.pids.gov.ph](mailto:joseo@mail.pids.gov.ph).
6. The Institute shall adopt the Quality-Based Evaluation Procedure in the selection of consultants.
7. Deadline for the submission of eligibility requirements and technical and financial proposals for the abovementioned research project is on or before May 11, 2017 addressed to:  
  
Sonny N. Domingo – Chairperson, BAC for Consultancy Services  
c/o The BAC Secretariat (Consultancy Services)  
18/F Three Cyberpod Centris – North Tower, EDSA cor. Quezon Ave., Quezon City
8. PIDS reserves the right to reject any or all the proposals, or declare a failure of bidding, or not award the contract, if there is evidence of collusion including any act which restricts, suppresses or nullifies competition, or if there is a failure to follow the prescribed bidding procedures. PIDS also reserves the right to waive any required formality in the proposals received, and select the proposal which it determines to be the most advantageous to PIDS.

  
Sonny N. Domingo  
Chairperson  
PIDS-BAC for Consultancy Services

**TERMS OF REFERENCE**

**Preparing the Philippines for the Fourth Industrial Revolution:  
A scoping study**

**1. Background and Rationale**

Developments in genetics, artificial intelligence, robotics, nanotechnology, 3D printing, biotechnology, and other technologies have ushered in the Fourth Industrial Revolution (FIRe)<sup>1</sup>.

One way to distinguish the different phases of the industrial revolution is to describe what it did to manufacturing. The first industrial revolution in the late 18th century brought mechanization to textile manufacturing. The second industrial revolution in the early 20th century was an era of mass production epitomized by the assembly line. In this era parts are physically brought into one place and assembled into a product. The third industrial revolution of the middle of the 20th century automated the production process through electronics and information technology. FIRe is described as the “fusion of technologies that is blurring the lines between the physical, digital and biological spheres.”<sup>2</sup>

On the production side, there is the promise that in an interconnected world any design can be “printed” in three-dimension (3D) layer by layer into the physical product anytime and anywhere. On the consumption side, people will be accessing via mobile devices that has unprecedented processing power and storage capacities that enables virtually unlimited access to knowledge on their fingertips. These developments will mean “transformation of entire systems of production, management and governance.”

The nature of the impact will be systemic as well as sector-specific. It would also be global as well as specific to geographic areas. The speed of change will be exponential rather than linear. The disruptions will be on top of the current threats of political, economic and military turmoil that could disrupt rule-based global trade, investment, finance and security.

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<sup>1</sup> World Economic Forum, The future of jobs: Employment, skills and workforce strategy for the fourth industrial revolution. Global Challenge Insight Report (2016)

<sup>2</sup> Klaus Schwab. “The Fourth Industrial Revolution: what it means, how to respond,” <https://www.weforum.org/agenda/2016/01/the-fourth-industrial-revolution-what-it-means-and-how-to-respond/> (January 14, 2016)

## **2. Objectives**

While technological changes offer tremendous benefits and opportunities, the advent of FIRE will also present risks and challenges that could block the country's ability to reach its zero poverty ambitions by 2040. Thus, appropriate and forward-looking policies will need to be put in place. As the initial scoping study on the key trends and critical issues, the study will:

- a. Analyze the technological landscape and discuss how new and emerging technologies are likely to shape Philippine industries directly (e.g. adoption by domestic industries of labor saving technologies) and indirectly through changes in trade and investment patterns (e.g. reversal of production offshoring in developed economies).
- b. Examine if our industries are resilient enough to face the challenges/risks presented by the mainstreaming of disruptive technologies and if the country's policy environment is conducive to the development of resilient industries.
- c. Identify the implications of FIRE for the country's human development (HD), trade and industrial strategies and examine supply-side and demand-side constraints that need to be addressed to ensure that Philippine industries and workforce are able to adjust and flourish under FIRE's new normal.

The study is expected to lay the groundwork for the development of a possible bigger and multi-disciplinary research program on the impact of technological change on Philippine industries and labor markets.

## **3. Scope of Work**

Under the guidance and technical oversight of a PIDS Senior Research Fellow who serves as Project Director, the Consultant shall be the Co-Principal Investigator for this study. He/She is expected to work with the Project Team and perform the following tasks:

- a. Prepare a review of the literature
- b. Lead Focused Group Discussions and conduct Key Informant Interviews with select industry leaders and science and technology experts.
- c. Co-author a discussion paper
- d. Draft a policy note
- e. Participate in a research seminar to present the results of the study.

#### 4. Qualifications of the Consultants

The Consultant should have the following qualifications:

- Ph.D. in Applied Science
- At least 10 years of relevant experience
- Desirable Qualifications: 1) experience in technology and innovation policy issues and 2) good track record of delivering high quality products

#### 5. Deliverables and Schedule of Payment Releases

The Consultant will prepare the following outputs based on the schedule below:

Activities and Deliverables	Due Dates	Payment Tranches
Upon submission of <b>Inception Report</b> describing in detail the methodology, work plan, and schedule of activities, acceptance and approval of PIDS	June 15, 2017	10%
Upon submission of <b>Preliminary or Progress Report</b> containing the literature review, acceptance and approval of PIDS	July 31, 2017	25%
Upon submission of <b>Draft Report and presentation in an internal Research Workshop</b> , acceptance and approval of PIDS	October 16, 2017	25%
Submission of <b>Final Report</b> addressing comments to the Draft Report and comments from the Research Workshop, <b>Policy Notes and turnover of data and materials used</b> , acceptance and approval of PIDS	November 30, 2017	40%

#### 6. Project Duration

The contract period is from June 1, 2017 to November 30, 2017 on a part-time basis.

#### 7. Project Cost

The estimated cost of this consulting service is Four hundred fifty thousand pesos (Php450,000). This does not include the cost of field visits which will be shouldered by PIDS.