



Republic of the Philippines

DEPARTMENT OF SCIENCE AND TECHNOLOGY

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



19 April 2024

PCIEERD Administrative Order No. 2024 - 008
Series 2024

SUBJECT: PCIEERD Guidelines in the Implementation of the Institution Research Readiness Level Assessment (IRRLA)

In the interest of fully complementing the R&D needs and requirements of the industry, energy, and emerging technology sectors, PCIEERD shall implement the Institution Research Readiness Level Assessment (IRRLA) to provide an initial assessment of absorption capacity of an institution and its ability to perform S&T research and development, and to prescribe the appropriate S&T intervention programs for the Council's engaged institutions.

I. COVERAGE/ RATIONALE

The IRRLA is a measure of how far the institution has progressed in terms of R&D supported by a mix of robust processes, right people, and infrastructure.

Knowing the IRRL of a higher education institution (HEI) is important because it allows both the institution and the funding agency (i.e., PCIEERD) to:

- assess the institution's R&D maturity in an objective manner;
- identify the missing skills and resources required to reach the next level;
- make decisions on the necessary interventions to be undertaken to capacitate the institution;
- evaluate and manage the level of risk for potential R&D funding.

II. OBJECTIVES/ PURPOSE

The IRRLA will give prescriptions on the research readiness of an institution or its capacity to conduct R&D, is concerned with the maturity of efforts in several critical success areas:

- agenda setting, research design and implementation;
- capability building;
- research utilization;
- resource mobilization;
- structure/organization, monitoring, and evaluation; and
- technology transfer and commercialization.

III. ELIGIBILITY REQUIREMENTS

The program is open to academic and research institutions, which satisfy the following eligibility criteria:

- Must be a DOST-attached agency, DOST regional office, local or state university and college (LUCs, SUCs), private academic institutions with an S&T research thrust, non-government, non-profit, research institutions who have not yet availed of the program;

Postal Address: Philippine Council for Industry, Energy, and Emerging Technology Research and Development (DOST-PCIEERD)
4th and 5th Levels Science Heritage Bldg., Science Community Complex,
Gen. Santos Avenue, Bicutan, Taguig City 1631, Philippines

Website : <https://pcieerd.dost.gov.ph>
Email : pcieerd@pcieerd.dost.gov.ph
FOI Email : foi@pcieerd.dost.gov.ph



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MANAGEMENT (LEVEL II)

- b. Must be willing to participate in the IRRRA by submitting a letter of intent stating the field/ area they want to commit for assessment.

IV. DOCUMENTARY REQUIREMENTS

1. Cover letter signed/ endorsed by the institution head (Chancellor/ President).
2. Five-year research agenda.
3. Research policy that details, among others:
 - a. Research grants/allocation procedures
 - b. R&D evaluation process
 - c. Faculty deloading scheme
 - d. M&E scheme/ procedure
4. Institution Manual of Operations.
 - a. Organizational structure
 - b. Guidelines for faculty promotion pertaining to research and development efforts.
5. Institutional policy on intellectual property rights.
6. List of ongoing and completed IEET research specifying the start and end dates, funding sources, researchers involved, budget allotted for capex and cooperating institutions in the last five (5) years.
7. List of existing laboratory personnel/faculty and their IEET specialization relevant to the field being assessed.
8. List of publications (classified as ISI/ Scopus indexed/ peer-reviewed) and citations in the last five years.
9. List of IEC materials related to the R&D undertaken.
10. List of conferences and proceedings attended.
11. List of in-house R&D-related training, seminars, fora, and workshops conducted.
12. List of course/ degree program offerings relevant to the field.
13. List of equipment purchased by the institution in the last five years.
14. List of awards received and certification (i.e., QS or Times ranking, PAASCU/ PACUCOA, COD/COE).
15. List of impact assessment studies conducted on completed project.
16. List of tech transfer and promotional activities conducted to publicize its technology.
17. List of IP/Patents and utility models filed, pending, or awarded.
18. List of partners in technology transfer, adoption, and commercialization generated by the institutions.

NB. Please refer to the annex for the complete list of documents to prepare for the IRRRA.

V. IMPLEMENTING GUIDELINES

(a) Submission

1. The institution must signify its intention to be assessed of its IRRL by submitting a letter of intent to be addressed to the PCIEERD Executive Director through the Chief SRS of the PCIEERD Human Resources and Institution Development Division (HRDD). The institution's intent to be assessed of its IRRL must be accompanied by an endorsement from the DOST Regional Office. The letter should identify the field/ area that the institution would like to be assessed.

2. Alternatively, the Regional R&D Consortium, with the endorsement of the DOST Regional Office, will provide shortlists of potential institutions that they will invite for IRRL assessment. However, the institution must still submit a letter of intent to be assessed.
3. Upon approval of request, the institution will then submit to PCIEERD pertinent documentary support, which must exhibit evidence of the institution's compliance with the assessment criteria (see *Section IV* for details).

(b) Evaluation

1. PCIEERD will convene a team of evaluators (composed of 1-3 experts in the field/ area identified by the institution) and PCIEERD HRIDD project managers.
2. PCIEERD will undertake the initial paper evaluation and will schedule an ocular inspection, interview, and evaluation. PCIEERD reserves the right to ask for additional documentation prior to ocular inspection. The paper evaluation will include data/documents 5 years prior to the date of assessment.
3. PCIEERD's team of evaluators will visit the institution and interview key personnel to validate the documents submitted, and the institution will be evaluated based on the set of criteria.
4. PCIEERD evaluators will recommend the institution's IRRL to the PCIEERD Management Team (PMT) for approval. A written copy of the report, signed by the field experts, detailing the findings will be provided to the institution.

VI. GENERAL PROVISIONS

1. The decision of PCIEERD regarding the IRRL assessment is considered final. Request for reassessment may be scheduled after three (3) years of preceding assessment.
2. All forms and guidelines can be downloaded at the PCIEERD website at <http://www.pcieerd.dost.gov.ph>.

This Administrative Order takes effect immediately and supersedes all previous orders inconsistent herewith. Done this _____ day of _____ 2024.

Philippine Council for Industry, Energy and Emerging
Technology Research and Development



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DR. ENRICO C. PARINGIT
Executive Director

Annex to the PCIEERD Guidelines in the Implementation of the Institution Research Readiness Level Assessment (IRRLA)

Annex 1. Assessment Rubrics on the Following Areas:

1. Agenda setting, research design and implementation (15%).

This area is concerned with the generation of research aligned with the HNRDA. This area also deals with the monitoring and evaluation of projects.

2. Structure/organization, monitoring, and evaluation (20%).

This area is evaluated to determine the strengths, weaknesses, and/or areas for improvement in S&T policymaking and policy implementation of the institution. Central to this is the existence of a fully functional and credible board or council which monitors policy implementation and responds to any need for adjustments or revisions that may arise.

3. Capability building (20%).

This area is concerned with expanding resources to enhance and upgrade technical and ethical know-how on research and commercialization by all investigators/proponents of the institution. Regular pieces of training on various research, technical support, and availability of learning resources and equipment that facilitate the development and generation of studies aligned with HNRDA are provided. Continued support and motivation for researchers to ease and expedite the conduct and development of investigation must be evident.

4. Research utilization (20%).

This area is concerned with the research outputs/outcomes/impacts for the last five (5) years. It determines how research outputs are disseminated to and benefitted the stakeholders. Presentation in scientific fora and other sources of public information such as publications in journals, citations, and awards are also considered in research utilization.

5. Resource mobilization (10%).

This area deals with financial and resource distribution to different studies approved by the research institutions. Priority setting on budget allocation must follow standardized procedure and anchored on the priorities/agenda. Linkages and collaboration can help expand research resources and compensate for their limitations.

6. Technology transfer and commercialization (15%).

This area evaluates the extent to which the research outputs are readily available for public use through laboratories, technology business incubators, or R&D centers. The availability of a technology transfer office that supervises the conduct of technology transfer and promotional activities will also be assessed. It will also evaluate the commercialization activities like intellectual property (IP) protection, consulting, and creation of spin-off companies being done by an institution. University- industry collaboration is also part of this area.

Annex 2. Scoring Scheme and Assessment System

The scoring procedure and scoresheet of the DOST Monitoring and Evaluation Handbook in Research and Development will be used. An HEI will be categorized in one of 4 RRL based on the sum of the scores for all assessment areas:

- **RRL 4 – Leadership (86-100%)**

This level indicates a fully functional and mature research institution that has realized or is currently realizing its mission and objectives through systematic governance and administration.

- **RRL 3 – Maturity (71-85%)**

The research institution is currently on the way to achieving its mission and objectives with adequate governance and administrative policies.

- **RRL 2 – Growth (56-70%)**

The research institution is still at its ‘infancy’ as far as R&D capabilities are concerned but with attainable mission and objectives.

- **RRL 1 – Inception (55% or below)**

This level indicates serious gaps in most if not all areas evaluated and indicates the suboptimal performance of the research institution in general.

Annex 3. Scoring Prescription

- Institutions with **RRL4** quality for grants under the Niche Centers in the Regions for R&D (NICER) Program, the Collaborative R&D to Leverage Philippine Economy (CRADLE) Program, the Business Innovation through S&T (BIST) for Industry Program, PCIEERD's R&D grants, and /or entitlements that are conferred to specialized training providers under the HRIDD's training grants. These institutions no longer qualify to access funds for capability development projects.
- Institutions with **RRL 3** qualify for all grants available for RRL4 institutions, except program leadership under the NICER Program grants.
- Institutions with **RRL 2** will need the program interventions for R&D human capital development provided by HRIDD. These institutions may avail themselves of the entitlements of the IDP, provided they engage the expertise of an RD Lead, a Balik Scientist, or an S&T Fellow.
- Institutions with **RRL 1** may engage the service of an RD Lead, a short-term Balik Scientist, or an S&T Fellow through the Visiting Experts Program to direct specific agenda, that includes conceptualization of R&D program, and policy development, among others.

Annex 4. Scoring Checklist

Scoring

- 0 – Provision or item is not met or not observed.
- 1 – Provision or item is partially met; improvements is/are recommended.
- 2 – Provision or item is observed or satisfactorily met; no significant modification needed at the moment.

Scoring Procedure

- a. Compute the sum scores in each item and divide by the perfect score for that area.
- b. Multiply this by the assigned percentage weight.
- c. Compute the sum percentage scores for all areas.

Scoresheet

I. AGENDA SETTING, RESEARCH DESIGN AND IMPLEMENTATION

ITEM/PROVISION	EVIDENCE REQUIRED	QUERIES	Raw Score	Weighted Score
1. Institution's R&D are aligned with the HNRDA.	List of priority areas/agenda in HNRDA being supported/ addressed.	What priority areas will the institution pursue in the next 5 years?		
2. HNRDA is made known to both the institution's research reviewers and researchers.	AO/ Memorandum disseminating the HNRDA; briefing on the HNRDA.	What activities support this claim?		
3. The Institution has an established procedure in selecting and approving R&D projects.	R&D evaluation process.	Is the process peer-reviewed?		
4. The Institution has an M&E scheme/ procedure to consistently monitor the conduct of their researches.	M&E scheme/ procedure.	Describe the schedule of M&E once a project has been approved by internal/ external funders.		
5. At least 50% of the researches completed within the last five (5) years were collaborative research or done with other cooperating institution/s.	List of completed researches and cooperating institutions for the last 5 years. List of completed and ongoing projects implemented under DOST- GIA for the last 3 years.	What steps has the institution undertaken to increase research activity in the last 5 years? Show statistics to support claims.		

50-100% will get a score of 2; 1-49% will get a score of 1	Percentage of projects completed on time for the last 5 years.			
6. Funding of researches are allocated in the institutional budget.	Total R&D investment and Ratio of R&D Budget vs. Total Budget.	Will the target ratio in favor of research be increased? What is the timeline and by how much is the increase?		

II. STRUCTURE AND ORGANIZATION

ITEM/PROVISION	EVIDENCE REQUIRED	QUERIES	Raw Score	Weighted Score
1. There is an officially recognized research unit or designated office that functions for policy formulation, implementation, monitoring, and evaluation.	Existence of R&D office.	Show a list of regular meetings of R&D offices and agenda/ attendance to these meetings.		
2. There is a clear organizational structure with specific, well-delineated, and documented role assignments and responsibilities for each position, including the terms of office.	Organizational structure. Employee's term of reference (TOR).	Show how R&D office personnel complement the research agenda and execution of research work at the institution.		
3. All information regarding organizational structure, objectives, policies, and by-laws are documented in a manual of operations.	Manual of operations.			
4. The manual of operations is periodically updated and distributed to all members of the institution and published on the institution's website.	Institution's website or intranet.	Show cases of possible updates introduced to the manual of operations.		

III.CAPABILITY BUILDING

ITEM/PROVISION	EVIDENCE REQUIRED	QUERIES	Raw Score	Weighted Score
1. At least 20% of the faculty/staff/researchers have a track record on research. 20-100% will get a score of 2; 1-19% will get a score of 1	Number of staff involved in R&D and their educational background & research they conducted.	Are there efforts to increase number of employees to do research? Are these research areas part of the HNRDA?		
2. R&D related trainings, seminars, and workshops are held at least once a year by the institution. Possible score will be 0 or 2 only	List of R&D related trainings, seminars and workshops conducted.			
3. The institution includes the conduct of research as part of its staff/researcher's load with "deloading" scheme arrangement or equivalent compensation.	The number of staff doing researches. <i>There is a clear process to provide deloading of teaching units from faculty who have acquired successfully external grants; no additional deliverables on top of the external grant deliverables are expected.</i>	Show the process and statistics to back the claim.		
4. The institution includes R&D proposal or outputs, such as publication, as part of the staff's promotion and ranking.	The requirements for Promotion/ Ranking.			
5. The institution has a pool of qualified research experts who are available and can be tapped for technical advice, research	Experts pool.	Match experts and HRNDA topics.		

review, monitoring, and evaluation.			
6. The institution provides permanent space and facilities (laboratories & equipment) for R&D. CAPEX institution:funder ratio >0.25 2 points 0.15-0.24 1 point <0.15 0 point	List of available infrastructures (office space, laboratory, digital technologies, and R&D facilities). Ocular visit/ evaluation to validate that the facilities are being utilized.	What infrastructures were built/ established during the last 5 years to support science research (IEET) agenda?	
7. The research institution has an adequate information network, scientific references, and e-learning facilities available for other researchers.	Ocular visit/ evaluation to validate that the facilities are being utilized.		
8. Funding of R&D capability building is included in the institutional budget.	Institution's budget	What is the projected yearly increase of budget allotted to R&D? Ratio of R&D budget increase to total budget?	

IV.RESEARCH UTILIZATION

ITEM/PROVISION	EVIDENCE REQUIRED	QUERIES	Raw Score	Weighted Score
1. At least 50% of the completed researches/ projects for the past five (5) years are published in peer-reviewed journals. 50-100% will get a score of 2; 1-49% will get a score of 1.	List/number of papers published in peer-reviewed journals vis-à-vis the number of a completed project.	Sample papers.		
2. At least 50% of the completed researches/ projects have	List/number of publications / IEC materials published and disseminated vis-à-	Sample publications/ IEC.		

<p>published IEC materials and other forms of publications.</p> <p>50-100% will get a score of 2;</p> <p>1-49% will get a score of 1.</p>	<p>vis the number of a completed project.</p>			
<p>3. At least 50% of the completed research outputs have been presented in local/ international fora/ conferences.</p> <p>50-100% will get a score of 2;</p> <p>1-49% will get a score of 1.</p>	<p>List/number of papers presented in national/ international conferences/ fora vis-à-vis the number of a completed project.</p>	<p>Sample report of conference proceedings.</p>		
<p>4. Research of the institution received awards or recognition by local/ international award-giving bodies.</p> <p>Possible score will be 0 or 2 only.</p>	<p>List of awards/ certificate received.</p>			
<p>5. Research have initiated follow-up investigative and scientific studies.</p> <p>Possible score will be 0 or 2 only.</p>	<p>List of follow-up investigative and scientific studies conducted.</p>	<p>Follow up research examples and how it is aligned to HNRDA.</p>		
<p>6. At least 20% of the completed research have been cited in other studies.</p> <p>20-100% will get a score of 2;</p> <p>1-19% will get a score of 1.</p>	<p>Number of research citations.</p>			
<p>7. Institution conducts research fora at least once a year.</p> <p>Possible score will be 0 or 2 only.</p>	<p>List of research fora conducted.</p>	<p>List and their target objectives—give examples.</p>		

8. Institution conducts impact assessment on completed projects.	List of impact assessment studies conducted.	What are the areas of improvement based on assessment?		
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V. RESOURCE MOBILIZATION

ITEM/PROVISION	EVIDENCE REQUIRED	QUERIES	Raw Score	Weighted Score
1. Standardized procedures for research grants/allocation are observed and monitored.	Research grants/ allocation procedures	Do you update these procedures based on DOST-GIA guidelines and/or CHED guidelines? How different are the internal guidelines to these two?		
2. Collaborative research aligned with the HNRDA are given budget priority.	List of institution's priority areas/fields.	Internal budget allocation to institution's priority areas/ fields.		
3. The institution provides counterpart funding for collaborative researches. >15% of total external funds generated 2 points <15% 1 point	R&D investment/counterpart funding for the last 5 years.	Show proof and also outputs of these investments if there are any.		
4. The institution generates external funds to facilitate the conduct of researches.	List of funding agencies that funded the institution's researches. Amount of external funds generated.			

VI. TECHNOLOGY TRANSFER AND RESEARCH COMMERCIALIZATION

ITEM/PROVISION	EVIDENCE REQUIRED	QUERIES	Raw Score	Weighted Score
1. There is a technology transfer office that supervises the conduct of	Existence of technology transfer office. Existence of R&D centers and Technology Business Incubators.	Show activities and initiatives in the last 5 years.		

technology transfer, the establishment of Technology Business Incubators (TBIs), and conduct of promotional activities.				
2. The institution conducts technology transfer activities to promote and publicize its technologies.	List of tech transfer and promotional activities conducted.			
3. Researches have led to the development of IP-protected products. Number of Patents >2 patents = 2 points 1-2 patents = 1 point	Number of IP/patents and utility models filed, pending, and awarded.			
4. There is an institutional policy on intellectual property rights.	Institutional policy on intellectual property rights.	How do they interface with TAPI and or IPO?		
5. The institution has industry partners that collaborate in the transfer, adoption, and commercialization activities such as IP protection and licensing services.	List of partners in technology transfer, adoption, and commercialization generated by the HEI.	Show some examples and their outcomes, if any.		