



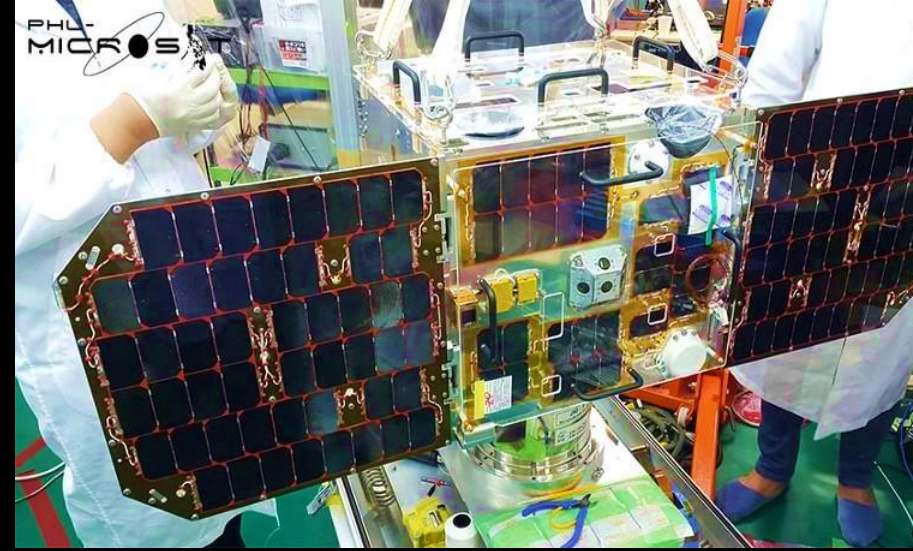
DEPARTMENT OF SCIENCE AND TECHNOLOGY  
PHILIPPINE COUNCIL  
FOR INDUSTRY, ENERGY  
AND EMERGING TECHNOLOGY  
RESEARCH AND DEVELOPMENT  
(DOST-PCIEERD)

# ***From Labs to Lives: Building R&D Capacities and Opportunities for Sustainable Recovery***

*PCIEERD 11<sup>th</sup> Anniversary*









# Framework of the Global Innovation Index 2020





## HUMAN CAPITAL & RESEARCH..... 23.9 86

<b>2.1</b>	<b>Education.....</b>	<b>26.6</b>	<b>114</b>	○
2.1.1	Expenditure on education, % GDP. <sup>①</sup> .....	2.7	106	○ ◇
2.1.2	Government funding/pupil, secondary, % GDP/cap.....	n/a	n/a	
2.1.3	School life expectancy, years.....	13.1	79	
2.1.4	PISA scales in reading, maths, & science.....	349.7	78	○
2.1.5	Pupil-teacher ratio, secondary. <sup>②</sup> .....	23.9	106	
<b>2.2</b>	<b>Tertiary education.....</b>	<b>39.0</b>	<b>47</b>	◆
2.2.1	Tertiary enrolment, % gross.....	35.5	75	
2.2.2	Graduates in science & engineering, %.....	28.7	22	
2.2.3	Tertiary inbound mobility, %.....	n/a	n/a	
<b>2.3</b>	<b>Research &amp; development (R&amp;D).....</b>	<b>6.2</b>	<b>73</b>	
2.3.1	Researchers, FTE/mn pop. <sup>③</sup> .....	105.7	87	
2.3.2	Gross expenditure on R&D, % GDP. <sup>④</sup> .....	0.2	95	
2.3.3	Global R&D companies, avg. exp. top 3, mn \$US.....	0.0	42	○ ◇
2.3.4	QS university ranking, average score top 3*.....	20.6	51	◆

# The Philippines in the GII 2020

	GII	Innovation Inputs	Innovation Outputs
2020	50	70	41
2019	54	76	42
2018	73	82	68
2017	73	83	65
2016	74	86	64

**50th** among the 131 economies featured in the GII 2020.

**4th** among the 29 lower middle-income economies.


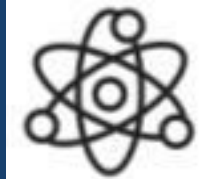
**11th** among the 17 economies in South East Asia,  
East Asia and Oceania.

# Strengthening Philippine R&D Capacity



**380** researchers, scientists and engineers (RSE) per million

**1%** GDP Expenditure on R&D (GERD)

	2009	Present	2022
	180	270	300
	0.11 %	0.2 %	0.5 %

# DOST Scholarship Programs

## Undergraduate Scholarships:

- ❑ Merit Scholarships
- ❑ Republic Act No. 7687
- ❑ Project Grant for Educational Assistance on Technology and Science Teaching Courses in Mindanao (GREAT-M)
- ❑ Junior Level Science Scholarships
- ❑ Fast-Track Science and Technology Scholarship Act of 2013 (RA 10612)



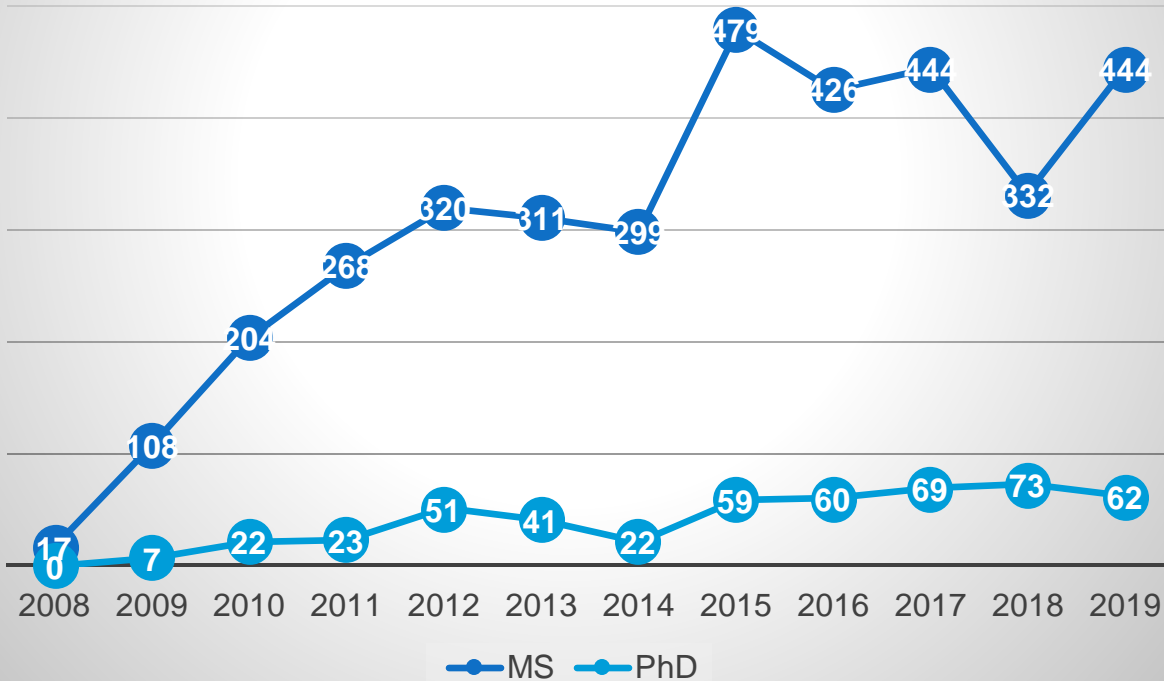
## Graduate Scholarships:

- ❑ Accelerated Science and Technology Human Resource Development Program (ASTHRDP)
- ❑ Engineering Research and Development for Technology Program (ERDT)
- ❑ Capacity Building in Science and Mathematics Education

Consortium member universities where a graduate scholar can enroll.

Region	Consortium Member University	ASTHRDP	ERDT	NCGSME
I	Mariano Marcos State University			X
III	Central Luzon State University	X	X	X
IV-A	University of the Philippines Los Baños	X	X	
V	Bicol University			X
NCR	Ateneo de Manila University	X	X	X
	De La Salle University	X	X	X
	MAPUA Institute of Technology		X	
	Philippine Normal University			X
	University of Santo Tomas	X		
	University of the Philippines Diliman	X	X	X
	University of the Philippines Manila	X		
VI	Visayas State University	X		
	University of the Philippines Visayas	X		
	West Visayas State University			X
VII	University of San Carlos	X		X
IX	Western Mindanao State University			X
X	Mindanao State University Iligan Institute of Technology	X	X	X
ARMM	Mindanao State University Marawi			X

## Scholar Graduates of ERDT & ASTHRDP



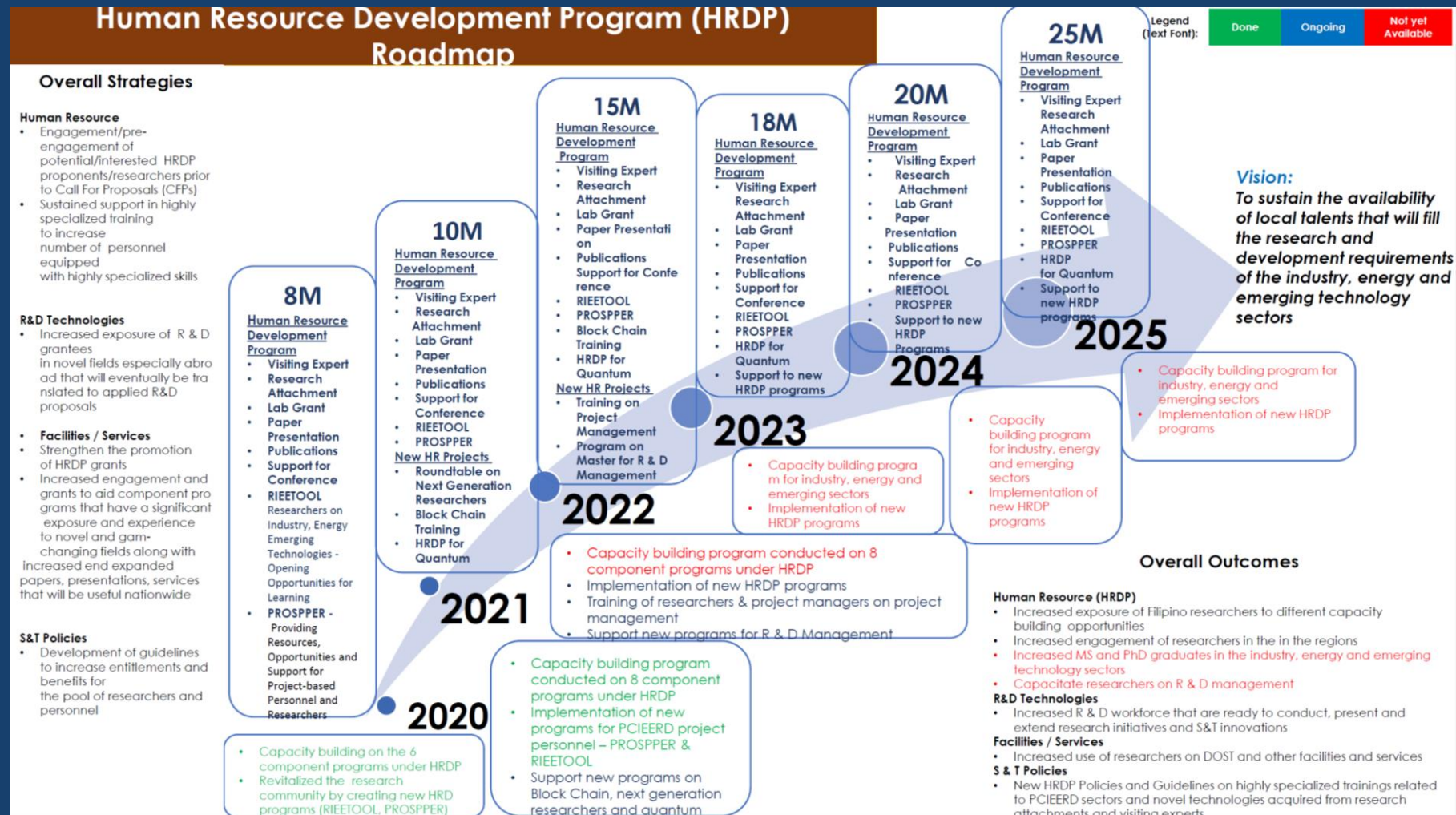
Awarded a total of **10,188**  
MS/PhD Scholarships  
**4,141** graduated



As of September 30, 2020



# Human Resources R&D Investments in the Industry, Energy, and Emerging Technology Sector



Visit: <https://pcieerd.dost.gov.ph/library/road-maps>

# Project Outputs and Outcomes

**6Ps + 2Is**

1. Publications
2. Patents
3. Products
4. People Services
5. Places and Partnerships
6. Policies

- ✓ **S**ocial Impact
- ✓ **E**conomic Impact

# Regional Consortia R&D Program for researchers and institution in the region



## SCOPE

Proposals must be aligned with the following program areas for funding consideration.

### Regional Consortia R&D Program for new researchers and institution in the Region

This funding opportunity will cover the Regional Consortia endorsed R&D proposals from Higher Education Institutes (HEIs), Government Research and Development Institutes (RDIs), non-profit S&T networks and organizations, private sector, and other proponents seeking funding for their R&D initiatives.

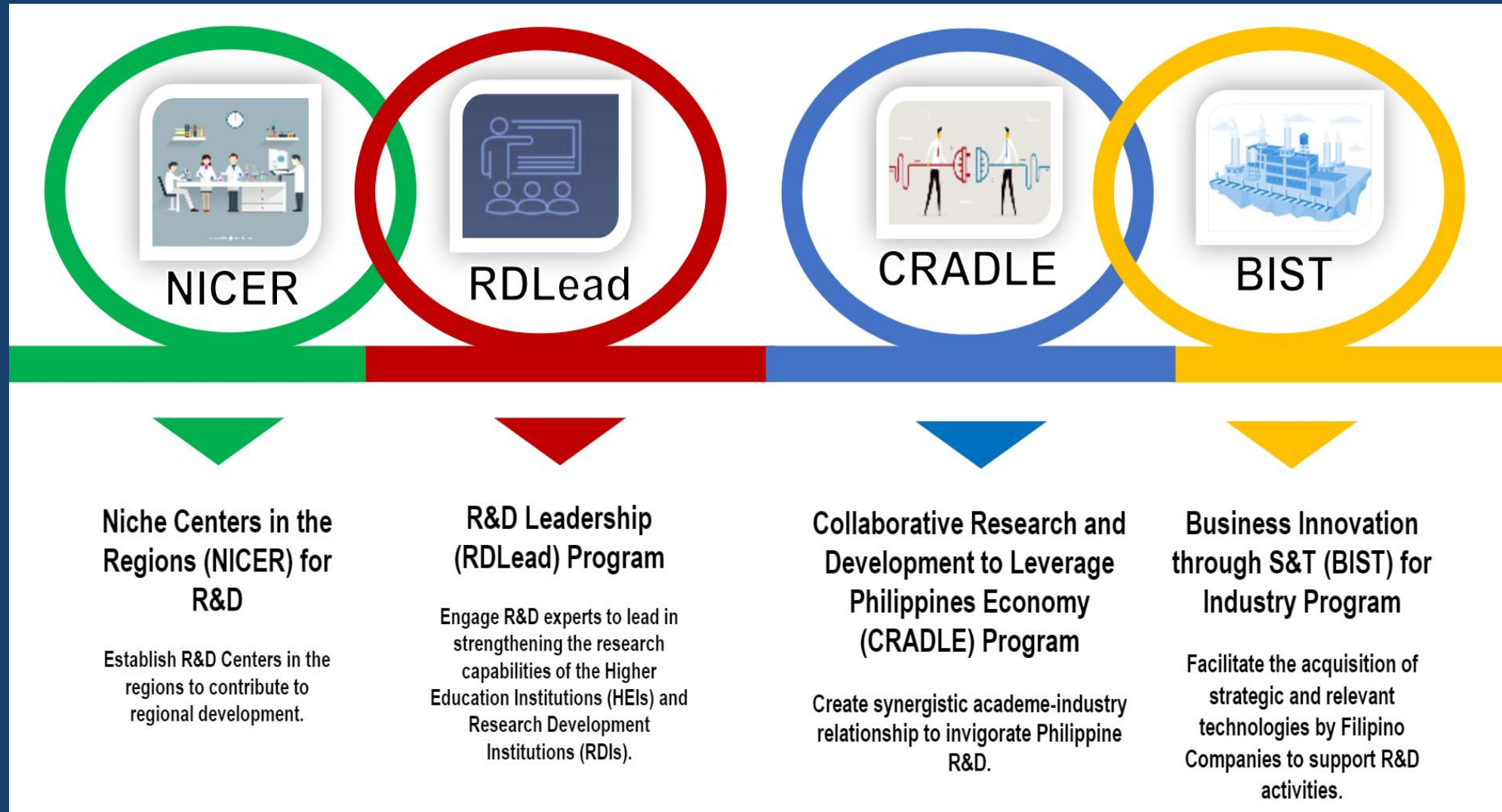
The program aims to develop research capabilities and increase the available researchers, scientists and engineers in the PCIEERD priority sectors through regional consortia program. The specific objectives are as follows:

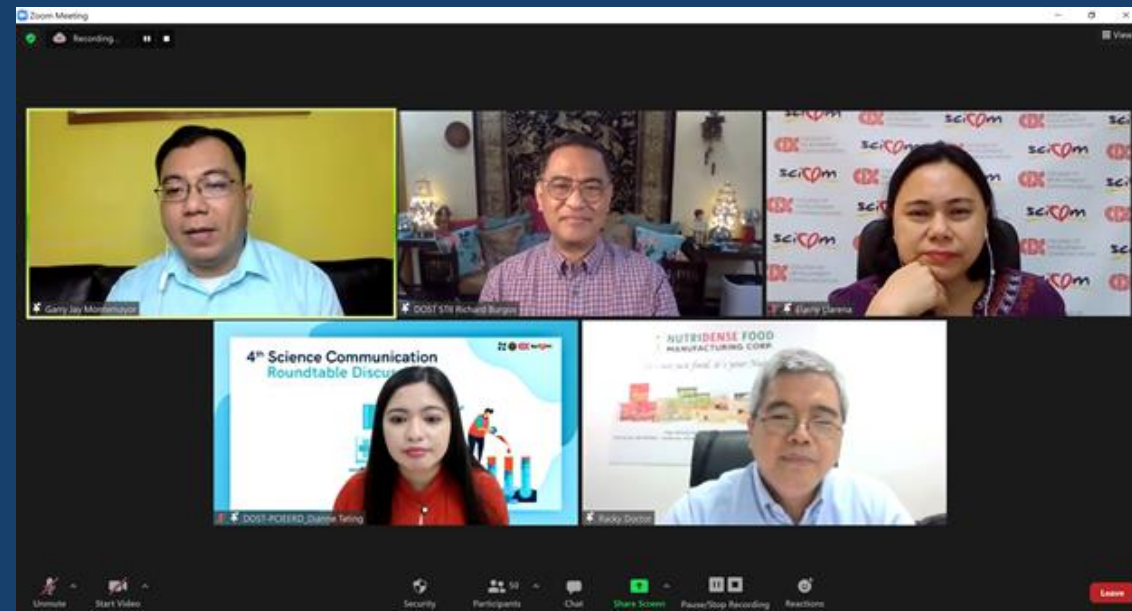
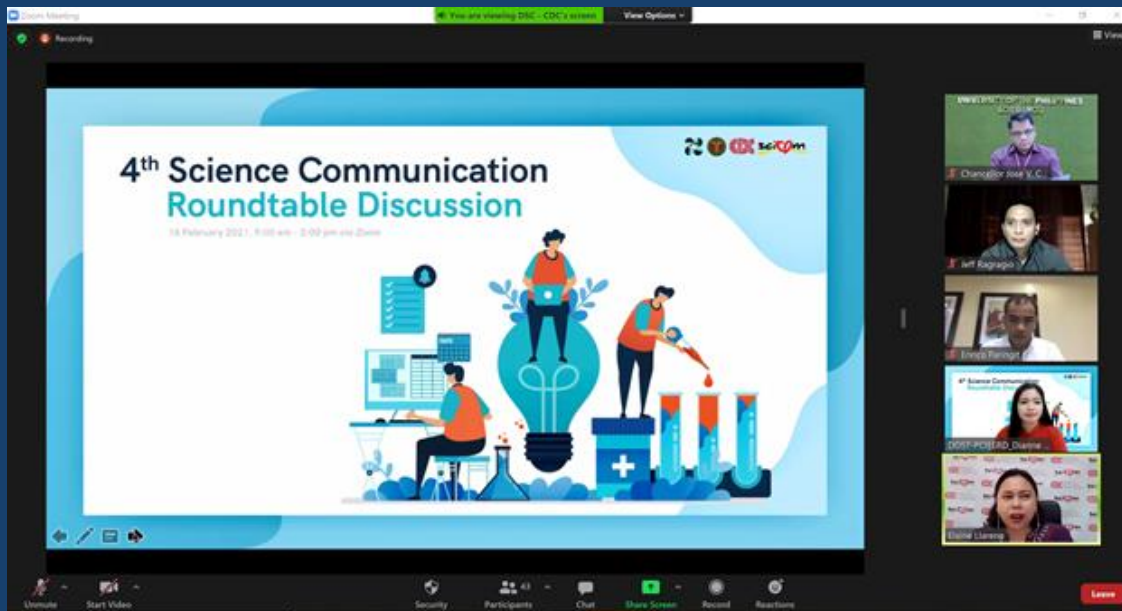
- to provide R&D support to new researchers and institutions in the region
- to provide research opportunities to new researchers within the institution members of the PCIEERD Regional Consortia





# Accelerated R&D Program for Capacity Building of Research and Development Institutions and Industrial Competitiveness





# Future and foresight of important technologies for the country



## OPTICS AND PHOTONICS

- Optics and Photonics R&D Program
- Nuclear Science R&D Program



## INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)

- Development of Blockchain Applications in the Philippines



## ARTIFICIAL INTELLIGENCE

- AI PINAS: AI Robotics Enabling Solutions for Emerging Needs



# Sustaining S&T Human Resource for R&D

- Retain S&T HRD by providing
  - R&D opportunities (funding)
  - R&D programs (Harmonized National R&D Agenda)
  - R&D infrastructure
  - Incentives for researchers and institutions
- Support S&T HRD Plan

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