

DOST Mandate

Provide central direction, leadership, and coordination of scientific and technological efforts and ensure that the results therefrom are geared and utilized in areas of maximum economic and social benefits for the people

DEPARTMENT OF SCIENCE AND TECHNOLOGY

DOST OFFICE OF THE SECRETARY



SCIENCE FOR THE PEOPLE: DOST Strategic Plan 2017-2022

MISSION

To direct, lead and coordinate the country's scientific and technological efforts, geared towards maximum economic and social benefits for the people.

LONG-TERM VISION

The DOST is the "provider of world-class scientific, technological and innovative solutions that will lead to higher productivity and better quality of life."



SCIENCE FOR THE PEOPLE: DOST 11-Point Agenda

8

9

10

11

- Pursue R&D to address pressing national problems
- Conduct R&D to enhance productivity and improve management of resources
- Engage in R&D to generate and apply new knowledge and technologies across sectors
- Strengthen and utilize regional R&D capabilities
- Maximize utilization of R&D results through technology transfer and commercialization
- Develop STI human resources and build a strong STI culture

- Upgrade STI facilities and capacities to advance R&D activities and expand S&T services
- Expand STI assistance to communities and the production sector, particularly MSMEs
- Provide STI-based solutions for disaster risks and climate change adaptation and mitigation
- Strengthen industry-academe-government and international STI collaboration

• Enhance effectiveness of STI governance

 \checkmark

5

6

DOST Grants-in-Aid Program



The Program aims to harness the country's scientific and technological capabilities by providing financial grants to S&T programs/projects to spur a sustainable economic growth for the country.

Coverage of DOST-GIA Funding Assistance

Research and Development

- ✓ Fundamental/Basic R&D
- ✓ Applied Research
- Experimental Development
- ✓ Pilot Testing

 Research and Development Results Utilization (RDRU) – Diffusion of Knowledge and Technologies

- ✓ Technology Transfer
- ✓ Technology Receptor Capability Building
- ✓ Innovation Capacity Building
- Development of Human Resources and R&D Institutions for the S&T Sector
- Provision of Quality S&T Services

ASTHRDP & ERDT Graduates 2008-2019



105 Disciplines

•ASTHRDP awarded scholarships for **5,564 MS** and **1,179 PhD** •ASTHRDP graduates: **2,111 MS** and **304 PhD**

26 Disciplines

•ERDT awarded scholarships 2,524 MS and 395 PhD

•ERDT graduates 1,027 MS and 125 PhD

For HEIs and RDIs:

- Increasing rate of graduation of researchers
- High quality of research talent

The Challenge is to bridge the disconnect between the Academe and the Industry

For Industry:

- Only few companies perform R&D
- Low rate of technology adoption from local research



Science for Change Program





Niche Centers in the Regions (NICER) for R&D

Establish R&D Centers in the regions to contribute to regional development.

R&D Leadership (RDLead) Program

Engage R&D experts to lead in strengthening the research capabilities of the Higher Education Institutions (HEIs) and Research Development Institutions (RDIs). Collaborative Research and Development to Leverage Philippines Economy (CRADLE) Program

Create synergistic academe-industry relationship to invigorate Philippine R&D.

Business Innovation through S&T (BIST) for Industry Program

Facilitate the acquisition of strategic and relevant technologies by Filipino Companies to support R&D activities.

DOST R&D Grant-in-Aid Funding



DOST REGIONAL R&D INVESTMENT (2018)



The bulk of R&D spending in the PH comes from public sector with 60% of total excpenditures.

Most of the R&D activities are concentrated in NCR, Region IV-A (CALABARZON) and Region III (Central Luzon)

DOST REGIONAL R&D INVESTMENT (2017-2019)



DOST Grants-in-Aid (GIA) Program supports inclusive growth and innovation by ensuring that its <u>R&D funding</u> reaches the <u>countryside</u>

"Scientific and technological activities are geared towards inclusiveness and regional development"

TECHNICOM Technology Innovation for Commercialization

To fast track the transfer and commercialization of locallydeveloped innovations and technologies through financial and technical support









TBI Program:

Technology Business Incubator (TBI)

A partnership program for establishing TBIs in Higher Education Institutes and State Universities and Colleges who needs support in:

- Establishing an Incubation Program
- Funding for Operations, Salaries and Equipment
- Creating services and network for young technopreneurs





44 Technology Business Incubators Facilities and Services



 Nurtured more than 200 startups

- Produced more than 70 full
 blown startup companies
- Created over 800 jobs
- Generated more than 100
 million in private and government investments
- Generated over 60 million in terms of startup revenues







From Founders to Innovators....





From Founders to Innovators....











edusuite



Futuristic Aviation and Maritime Enterprise, Inc.













FarmWatch



Technologies transferred/commercialized through Technology Transfer Agreements

Agriculture, Aquatic, and	Manufacturing and Emerging	Textiles	Forest
Natural Resources	Technologies		Products
 Plant Growth Promoter Sinta Papaya Trichoderma Mykoplus ACTIcon <i>Nutrio</i> Carrageenan Technology Rice Harvester Attachment to Hand Tractor Rice Transplanter Attachment to Hand Tractor Biogas Digester System ARRAS (Automated Rapid Reef Assessment Systems) Nano-PGR (Nanoencapsulated Plant Growth Regulator) NitroPlus 	 Advanced Remote Data-acquisition Unit (arQ) Spray Dryer Vacuum Fryer Water Retort Freeze Dryer Vacuum Fried Okra Electric Plastic Densifier Dual Drum Carbonizer Salt Washer Machine Cacao Desheller /Winnower Cacao Grinder Cacao Grinder Cacao Grinder Community Lead Integrated Non- Advanced Remote Data-acquisition Unit (arQ) Spray Dryer Cyanide Non- Mercury Gold Extraction Method CLINN-GEM) LEAP: Learning English Application for Pinoys Eco-Sep VISSER (Versatile Instrumentation System for Science Education and Research) Bakery Products with Squash Technology Rice Mongo Sesame Blend Technology 	 Modified Handloom Weaving Machine Thera Loom v2.0 Geo Loom Sectional Warping Machine Twining/Twisting Machine Basic Handloom Weaving Advanced Handloom Weaving Extraction and Application of Natural Dyes Dyeing of Indigenous Fibers 	 Charcoal Crusher Drum Kiln Electrically Heated Handicraft Dryer Furnace Type Handicraft Dryer Furnace Type Lumber Dryer Manual Charcoal Briquettor Mixer

Global Innovation Index (2014-2019)



STRENGTHS:

0

graduates in science & engineering (#18);

trade, competition & market scale (#20); firms offering formal training (#9); research talent (#6);

High & medium high tech manufacturers (#25) ICT services exports (#8)

WEAKNESSES:

ease of starting a business (#119); expenditure on education (#112); gross expenditure on R&D (#98); pupil-teacher ratio (#96); tertiary inbound mobility (#108)

global R&D Companies (#43) scientific & technical articles (#123); new businesses/th population (#91); online creativity (#99)

BIG LEAP:

University/industry research collaboration (#25) Knowledge absorption (#14), High-tech net exports (#1) Creative Goods & Services (#40)



Cooperation Mechanisms

Strengthening International Cooperation in Science, Technology and Innovation (STI)

Objective: Pave the way for opportunities in STI through an enhanced bilateral and multilateral S&T collaboration

- Improving Philippines' STI standing in the international community
 - Promoting information dissemination on STI partners in the Philippines
 - O Promoting international activities related to STI
 - Fostering exchanges on STI activities

Building strategic partnerships with other countries

- Joint R&D
- \bigcirc Exchange Scientists
- Building Researchers Network
- \bigcirc Joint Seminars/Workshops
- \bigcirc Tech Transfer (knowledge, info, technology)
- \bigcirc Capacity building



(Creating inclusive innovation)

DOST Councils, Research and Development Institutes (RDIs), S&T Services, Regional Offices, Consortia/Institutes (e.g. SUCs, among others)



INTERNATIONAL S&T LINKAGES

Australia	E China	Chinese Taipei	France	Germany
India	Indonesia	I ran	Israel	I apan
Korea	Malaysia	New Zealand	Final Russia	Singapore
F Switzerland	South Africa	Thailand	Vnited Kingdom	United States of America

*DOST's International Collaboration not limited to the list above

