

Republic of the Philippines
HOUSE OF REPRESENTATIVES
Quezon City
Twentieth Congress
First Regular Session
HOUSE BILL NO. 8524



Introduced by Representative **RAYMOND ADRIAN E. SALCEDA**

AN ACT
ESTABLISHING THE SCIENCE FOR FUTURE-READY PHILIPPINES PROGRAM AND
APPROPRIATING FUNDS THEREFOR

EXPLANATORY NOTE

The Philippines has long recognized the importance of science and technology as catalysts for national progress. However, persistent gaps in research capacity, uneven distribution of R&D resources across regions, and the limited translation of publicly funded research into practical applications continue to hinder the country's full potential in the global knowledge economy. Strengthening the country's science and technology ecosystem requires a comprehensive and coordinated framework that aligns government priorities, mobilizes private sector participation, and harnesses the capabilities of the academe and research institutions.

This proposed measure seeks to establish the **Science for Future-Ready Philippines (S4FP) Program**, a strategic framework designed to strengthen and harmonize the nation's research and development agenda. Anchored on the **Harmonized National Research and Development Agenda (HNRDA)**, the program aims to accelerate innovation, enhance the capacity of research institutions, and promote stronger collaboration among government, industry, academe, and civil society.

The S4FP Program expands existing science and technology initiatives of the Department of Science and Technology (DOST) while introducing new priority areas that address emerging national and global challenges. These include programs in health resilience, renewable energy, biotechnology, disaster risk reduction, food security, climate science, and industrial productivity, among others. It also introduces new focus areas such as defense and security research, space science and technology, artificial intelligence, advanced electronics, and other emerging technologies essential for building a future-ready nation.

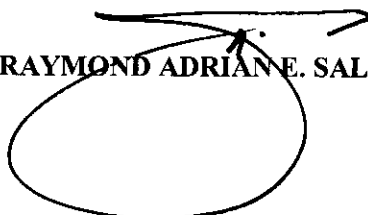
Central to the program are key strategies that strengthen the country's innovation ecosystem. These include the establishment of **Niche Centers in the Regions for Research and Development (NICER)** to support regional research capacity; the **R&D Leadership Program (RDLead)** to cultivate scientific leadership and mentorship; the **Collaborative R&D to Leverage the Economy (CRADLE)** program to promote partnerships between the academe and industry; and the **Business Innovation through Science**

and Technology (BIST) program to help Filipino enterprises access advanced technologies and improve their competitiveness.

Moreover, the measure emphasizes the importance of translating publicly funded research into practical and commercially viable technologies that can be adopted by government and industry. By encouraging technology transfer, strengthening innovation policies, and supporting regional research development, the program seeks to ensure that investments in science and technology yield tangible benefits for the Filipino people.

Ultimately, the establishment of the **Science for Future-Ready Philippines Program** represents a decisive step toward building a robust, inclusive, and forward-looking national innovation system. By fostering collaboration, strengthening research institutions, and empowering Filipino scientists and innovators, this measure aims to equip the Philippines with the tools necessary to address present challenges and seize future opportunities.

In view of the foregoing, the passage of this measure is earnestly sought.


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Be it enacted by the Senate and House of Representatives of the Philippines in Congress assembled:

SECTION 1. *Short Title.* – This Act shall be known as the "Science for Future-Ready Philippines Framework Act".

SEC. 2. *Declaration of Policy.* – It is the policy of the State to give priority to research and development, invention, innovation, and their utilization; and to science and technology education, training, and services. The State also recognizes that science and technology are essential for national development and progress.

To this end, the State shall establish the Science for Future-Ready Philippines program of the Department of Science and technology, recognizing the importance of cooperation between industry, academe, international linkages, and whole-of-nation approach to effectively address setbacks in the S&T environment and productivity.

The State shall formulate and implement policies to prioritize research and development, promoting innovations in both technology and services. In this regard, the State shall prioritize the strengthening and institutionalization of R&D programs towards future-ready and resilient Philippines which includes enabling research and development institutes and/or institutions (RDIs) that perform government-funded research and development (R&D) to take on technology transfer as their strategic mission and to effectively translate results of government-funded R&D into useful products and services.

SEC. 3. *Objectives.* – The objectives of this Act are as follows:

- a) To strengthen and harmonize R&D programs through the active participation of the government, academe, industry, and civil society; and
- b) To engage the private sector as partner in driving socio-economic growth through R&D;

- c) To encourage innovation and creativity among Filipinos, and come up with products, technologies and solutions to pressing national problems, and gain a competitive edge in the field of research and development through initiatives and programs.

SEC. 4. *Definition of Terms.* – As used in this Act, the following terms shall:

- a) Harmonized National Research and Development Agenda (HNRDA) refers to an outcome-based agenda which identifies all the research and development (R&D) programs and projects to be undertaken and funded by the government to support the attainment of the key result areas of the government's development objectives, particularly those that aim to reduce poverty and empower the poor and vulnerable; induce rapid, inclusive, and sustained economic growth; promote the integrity of the environment, and enhance the country's climate change adaptation and mitigation capability.
- b) High-tech equipment refers to any equipment using the most advanced and developed machines and methods.
- c) National Innovation Council (NIC) refers to the policy advisory body, established by virtue of Republic Act No. 11293, or the Philippine Innovation Act, mandated to formulate, develop, implement and monitor the country's innovation goals, priorities, and long-term national strategy.
- d) Publicly-funded technology refers to any technology the development or generation of which was funded, in part or in full, using government money or resources.
- e) Research and Development (R&D) refers to any systematic and creative work undertaken in the physical, natural, mathematical, and applied sciences by using methods in order to increase the stock of knowledge in these fields to devise new applications.
- f) Science, refers to the systematic way of acquiring knowledge through observation and experimentation.
- g) Technology refers to the practical application of science.
- h) Innovation refers to the creation of new ideas that result in the development of new or improved products, processes, or services which are then spread or transferred across the market.
- i) Technology licensing refers to a mode of technology transfer whereby a licensor such as a technology generator or technology or intellectual property owner, authorizes a licensee to use the technology under certain agreed terms and conditions.

SEC. 5. *Establishment of the Science for Future Ready Philippines Program and Utilization Policy Framework.* – The formulation of the S4FP is anchored on the HNRDA which shall be regularly updated based on the needs of the time.

- a) In order to achieve the objectives of this Act, the following science and technology (S&T) programs of the DOST shall be expanded:
 - i) Health Self Sufficiency and Responsiveness to Public Health Emergencies
 - ii) Renewable Energy Systems & Bioenergy Technologies
 - iii) Functional Materials for Alternative Energy Sources and Energy
 - iv) Conversion and Storage
 - v) Nuclear Science for Energy, Health, Agriculture and Industry Genomics

- vi) Biotechnology, Nanotechnology, and Climate and Environment Sciences
- vii) Nutrition and Food Security and Safety
- viii) Agriculture, Aquaculture and Fisheries Productivity
- ix) Natural Resource Management and Sustainable Development
- x) Transport Solutions
- xi) Industrial or Manufacturing or Mining Productivity
- xii) Disaster Risk Reduction and Climate Change Adaptation
- xiii) Science and Technology (Services for the Production Sector
- xiv) Metrology, Calibration and Standards
- xv) Technology Transfer or Commercialization
- xvi) Human Resource Development for Science Technology and Innovation
- xvii) Nurturing a Culture of Science

b) The following new programs shall also be included in the Science for Future-Ready Philippines program:

- i) Defense and Security Research and Development
- ii) Space Science and Technology
- iii) ICT Development, Electronics and Artificial Intelligence
- iv) Strengthening of Research & Development and Science & Technology Services in the Regions through Infrastructure and Human Resource Development
- v) S&T for the Creative, Tourism, and Services Industry
- vi) New and Emerging Technologies
- vii) Collaborative Artificial Intelligence R&D

SEC. 6. *Major Strategies of the Science for Future Ready Philippines Program.* – The S4FP shall focus on the Accelerated R&D Program for Capacity Building of Research and Development Institutions and Industrial Competitiveness which is composed of four (4) programs namely:

- (a) Niche Centers in the Regions for R&D (NICER). The NICER Program shall be implemented to address the discrepancy in access to R&D funding among the regions. Through the program, qualified higher education institutions (HEIs) in the regions shall be provided with grants so they can undertake quality research directed at promoting regional development with their existing capabilities and resources. A proposed NICER should be a unique and collaborative project between HEIs, and must be duly endorsed by the Regional Development Council (RDC).
- (b) R&D Leadership Program (RDLead). The RDLead program shall be implemented to help develop and strengthen further the research capabilities of the academe, research and development institutions (RDIs), and other government line agencies nationwide.

To this end, RDLeaders who are local S&T experts with strong leadership and innovative policy proficiencies shall be engaged to train, direct, and support R&D goals. Academic institutions, RDIs, and other agencies may engage the services of an RDLeader through a screening and evaluation process to be conducted by the National Research Council of the Philippines (NRCP) based on their respective needs and specifications.

The NRCP shall be the implementing agency of the RDLead Program. Collaborative R&D to Leverage the Economy (CRADLE) for RDIs and Industry. The CRADLE Program shall be implemented to promote technological advancement and innovation in local companies and to support the growth of the Philippine innovation ecosystem. Through the program, the academe or RDI in partnership with a Filipino company, shall undertake research and development to improve the company's products, processes, and services to become more competitive in their respective industries. To ensure that research outputs from the academe are commercially utilized by the market, beneficiary companies under this program must provide at least twenty percent (20%) counterpart funding and commit to adopt the technology that shall be developed by their R&D Partner. Business Innovation through S&T (BIST) for Industry. The BIST Program shall be implemented by the DOST to provide financial assistance to Filipino private companies for the acquisition of strategic and relevant technologies so they can undertake their R&D activities. The financial assistance shall be used solely for the purchase of high tech equipment or to secure technology licensing or patent rights and shall be refunded to the DOST without interest.

SEC. 7. Formulation and Submission of the Science for Future Ready Philippines Program. – The DOST shall formulate the five-year S4FP Plan in coordination with other relevant government agencies, including state universities and colleges, and representatives from the private sector undertaking R&D.

The Secretary of DOST shall submit to the President, for approval, the Science for Future-Ready Philippines program Plan within ninety (90) days from the effectivity of this Act. A successor S4FP Plan shall be formulated and submitted to the President for approval at least three (3) months prior to the expiration of the existing S4FP Plan.

SEC. 8. S4FP Program Management Office (PMO). – The Project Management Office for the Science for Future-Ready Philippines program (PMO-S4FP) shall be created and placed under the supervision of the Office of the Secretary of the DOST. The PMO shall ensure the effective and efficient implementation of the Science for Future-Ready Philippines programs. It shall perform coordinating and Secretariat functions and promote the various S4FP programs. The Secretary of the DOST shall formulate the staffing pattern of the PMO in coordination with the Department of Budget and Management and in accordance with rules and regulations of the Civil Service Commission.

SEC. 9. The Harmonized National R&D Agenda. – The DOST shall, in consultation with government research institutions and other agencies concerned, formulate a HNRDA and a program for technology adoption for the government in accordance with the priorities of the Philippine Development Plan. The proposed HNRDA shall be submitted to the National Innovation Council for approval. The DOST shall certify that all the publicly funded R&D projects form part of the HNRDA and included in our Harmonized National R&D Agenda under the annual General Appropriations Act." The DOST shall submit to the Department of Budget and Management, the Speaker of the House of Representatives, and the President of the Senate of the Philippines, either in printed form or by electronic document, a copy of the approved HNRDA. The Secretary of Science and Technology and the agency's web administrator or an equivalent officer shall ensure that the approved HNRDA is posted on the agency's website.

SEC. 10. Mandatory Adoption of Publicly-Funded Technologies. – All publicly funded and generated technologies whenever feasible and practicable shall be utilized by all government entities or

instrumentalities. All national government agencies, government owned and controlled corporations, state universities and colleges, and local government units conducting science and technology development projects shall adopt publicly funded technologies.

SEC. 11. *Science for Science for Future Ready Philippines Program.* – All donations, contributions, grants, bequests, or gifts, in cash or in kind, for the S4FP shall be placed into a fund to be known as the Science for Future-Ready Philippines program Fund: Provided, That, acceptance of grants, bequests, contributions, and donations from foreign governments shall be subject to the approval of the President of the Philippines, upon recommendation of the Secretary of the DOST and the Secretary of the Department of Foreign Affairs.

SEC. 12. *Appropriations.* – The amount needed for the initial implementation of this Act shall be charged against the current year's appropriation of the DOST. Thereafter, such amount as may be necessary for the continued implementation of this Act shall be included in the annual General Appropriations Act.

SEC. 13. *Annual Report.* – The DOST shall submit an annual report on the implementation of the S4FP to the Office of the President and to the Committee on Science and Technology of the House of Representatives and the Senate.

SEC. 14. *Implementing Rules and Regulations.* – Within One hundred eighty (180) days from the effectivity of this Act, the DOST shall formulate rules and regulations for its effective implementation.

SEC. 15. *Separability Clause.* – If any part or provision of this Act is declared invalid or unconstitutional, the remaining parts or provisions not affected shall remain and in full force and effect.

SEC. 16. *Effectivity.* – This Act shall take effect fifteen (15) days after its publication in the Official Gazette or in a newspaper of general circulation.

Approved,