EIGHTEENTH CONGRESS OF THE REPUBLIC OF THE PHILIPPINES Second Regular Session



## SENATE

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S. No. 2186

# Introduced by SENATOR RAMON BONG REVILLA, JR.

#### AN ACT

## TO ESTABLISH GUIDELINES AND INCENTIVES FOR THE DEVELOPMENT OF SCIENCE AND TECHNOLOGY PARKS (STPs) IN THE PHILIPPINES, AND FOR OTHER PURPOSES

#### **EXPLANATORY NOTE**

Article II Section 17 of the Constitution stipulates that, "The State shall give priority to education, science and technology, arts, culture, and sports to foster patriotism and nationalism, accelerate social progress, and promote total human liberation and development." Further, Article XIV Section 10 states that, "Science and Technology are essential for national development and progress. The State shall give priority to research and development, invention, innovation, and their utilization; and to science and technology education, training, and services. It shall support indigenous, appropriate, and self-reliant scientific and technological capabilities, and their application to the country's productive systems and national life."

The country adopted a National Science and Technology Plan (NSTP), 2002-2020 under the leadership of the Department of Science and Technology (DOST). NSTP focuses on building technological self-reliance. Pursuant to this, centers of excellence in the field of biotechnology, nanotechnology, genomics, semiconductors and electronic design were developed. Parallel to these efforts, various science parks were also established in the different parts of the country which includes the Laguna Technopark in Biñan, Laguna; Science City of Muñoz in Nueva Ecija; Cebu IT Park in Cebu City; Nuvali TechnoHub in Sta. Rosa, Laguna; and the U.P. South Technopark, U.P.-Ayala Land TechnoHub, and the DOST-PEZA Open Technology Business Incubator, all in Quezon City. These science parks serve as a hub of research and development of various industries and technologies.

The International Association of Science Parks (IASP) defines "science park", "technology park", "technopole" or "research park" as "an organization managed by specialized professional, whose main aim is to increase the wealth of its community by promoting the culture of innovation and the competitiveness of its associated business and knowledge-based institutions. To enable these goals to be met, a science park stimulates and manages the flow of knowledge and technology amongst universities, R&D institutions, companies and markets; it facilitates the creation and growth of innovation-based companies through incubation and spin-off processes; and provides other value-added services together with high quality space and facilities."

Silicon Valley in the United States of America was a forerunner in the development of science parks. It was once a poor region when the first science and technology park was established in Stanford University which served as a base of skilled science research funded by the government. It then flourished into a global center of information technology, innovation and research and is now recognized as a model of research parks and technology centers.

According to the United Nations Educational, Scientific and Cultural Organization (UNESCO), there are more than 400 science parks around the world, more than 150 of which is in the USA, 111 in Japan and around 100 is in China.

Recognizing the great potential of science and technology parks in promoting technology-based industries and in line with our commitment to Sustainable Development Goal 9 which is to "build resilient infrastructure, promote sustainable industrialization and foster innovation", this measure proposes to establish guidelines and incentives for the development of Science and Technology Parks (STPs) in every region of the country to encourage and support the establishment of more STPs. The

government shall provide fiscal and non-fiscal incentives that will enable the STPs to develop and contribute to the locality's and country's economic development.

In this light, the immediate passage of this bill is highly recommended.

0 RAMON BONG REVILLA, JR.

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

Section 1. Short Title. - This Act shall be known as the "Science and Technology
 Parks Act".

3 Sec. 2. *Declaration of Policy.* – The State recognizes science and technology as essential for national development and progress and shall give priority to research 4 5 and development, invention, innovation and their utilization, and to science and technology education, training and services. It shall support indigenous, appropriate, 6 and self-reliant scientific and technological capabilities, and their application to the 7 country's productive systems and national life. Towards this end, the State shall 8 develop a national strategy for, and incentivize the building of a knowledge-based 9 economy anchored on a national workforce that is well-equipped with 21<sup>st</sup> century 10 skills, through the establishment of Science and Technology Parks throughout the 11 country. 12

Sec. 3. *Definition of Terms.* – The following terms as used in this Act shall
 mean:

15 16 a) *Digital Transformation* means the strategic adoption or use of digital technologies to transform services or businesses, through replacing non-

digital or manual processes with digital processes, tools and solutions in order to improve productivity, deliver better user experiences, manage business risk and control costs;

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- b) *E-readiness (electronic readiness)* is a measure of the degree to which a country is prepared to partake in electronic activities and, thus, benefit from ICT in education;
- c) Innovation refers to the creation of new ideas using new or existing technologies that results in the development of new or improved products, processes, or services, which are then spread or transferred across the market;
  - d) Research Parks are master-planned property and buildings designed primarily for private and public research and development facilities, high technology and science-based companies, and support services;
- e) Science Park refers to all property development that is designed to support the clustering of knowledge-based enterprises in order to commercialize science and technology. Science parks aim to foster the development and growth of knowledge-based economies by bringing together scientific research with governmental organizations and their business support and development programs in one physical location;
- 20 f) Science and Technology Park (STP) encompasses any kind of high technology cluster such as technopolis, science park, science city, cyber 21 22 park, industrial park, innovation center, research and development (R&D) park, university research park, research and technology park, 23 science and technology park, science city, science town, technology 24 park, technology incubator, technology park, technopark, technopole 25 26 and technology business incubator run by an organization managed by specialized professionals whose main aim is to increase the wealth of its 27 community by promoting the culture of innovation and the 28 29 competitiveness of its associated businesses and knowledge-based institutions; 30

1 2 g) *Technology Business Incubator* is a facility designed to help startup technology-based businesses by providing them with the necessary resources, services and support needed during the development stage.

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Sec. 4. *Development of a National Ecosystem.* – To leverage science, technology and innovation (STI) which are the major pillars of developing economies in the Fourth Industrial Revolution, the State shall ensure the development of a national ICT ecosystem that will lead towards the Sustainable Development Goal (SDG) 9 which is building resilient infrastructure, promoting inclusive and sustainable industrialization, and fostering innovation by 2030. To achieve the foregoing goal, the State shall:

- a) Promote, develop, and grant subsidy and incentives for the development of science and technology parks or science parks, which shall have research and development centers, technology business incubators and other innovation centers;
- b) Promote, develop, and support capacity building activities to upgrade
   the knowledge of managers of science and technology parks across the
   country;
- c) Provide and make available technical assistance, policy advice and support for the establishment of centers for science park development around the country;
- d) Develop, promote, encourage, and ensure mechanisms and platforms
  for the integration of a developmental approach into science, technology
  and innovation, organizing capacity building, providing policy advice,
  facilitating the exchange of experience and best practices, and
  conducting research and problem solving in science park and technology
  incubator development.
- 27 Sec. 5. *Government Support for Science and Technology Park Projects.* In 28 the identification of science and technology park projects that can be qualified for 29 government support, the following essential precursory conditions must be in place:
- a) The key tenants or the anchor tenants, such as national research
   institutes which are committed to staying in the STP;

1	b) A management team with all the skills necessary for managing the STP
2	can be assembled;
3	c) A strong science based in the surrounding areas of the STP is already
. 4	available;
5	d) The city or area where an STP is located is attractive to talented people
6	and students;
. 7	e) An entrepreneurial culture is available in the city or country where an
8	STP is to be located; and,
9	f) Finance, especially seed and venture capital, is available in the area
10	where an STP is to be located.
11	Sec. 6. Incentives and Support for the Creation of Science and Technology
12	Parks. – The Department of Science and Technology (DOST), the Department of Trade
13	and Industry (DTI), the Department of Information and Communications Technology
14	(DICT), the Department of Finance (DOF), and the Department of Public Works and
15	Highways (DPWH) shall collaborate to create specific mechanisms to identify the
16	extent of incentives and support for the creation of STPs, which can be under any of
17	these models:
18	a) Fully-government owned either through the national government or any
19	of its agency, or a local government unit, a state university, or a
20	government corporation;
21	b) Publicly-owned or majority of ownership pertains to government with
22	private sector counterpart at less than fifty percent (50%);
23	c) Privately-owned or more than fifty percent (50%) ownership of the
24	private sector with government counterpart or subsidy;
25	d) Fully owned by private sector with assistance from government in
26	various forms such as seed money, technical support, and others.
27	Sec. 7. Technologies for Business Commercialization through the Science and
28	Technology Parks The DOST in consultation with the DTI and the DICT shall
29	identify, list, and recommend for prioritization of the technologies that are ideal and
30	desirable for business commercialization through the STPs.
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Sec. 8. Design and Plans of Science and Technology Parks. - The DOST, DICT 1 2 and DPWH shall prepare the design and plans of the proposed science and technology parks in every location and shall propose project timelines for each. 3

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Sec. 9. Regional Science and Technology Parks. - The DOST in consultation 5 with DTI shall design, prepare, develop, and recommend various components of a science and technology park in every region, subject to the following: 6

- a) Effectiveness of the incubation and innovation programs to be offered by an STP, ideal for the generation of innovative business ideas, growth of entrepreneurial spirit, and responsiveness to global market demand;
- b) List of potential key anchor tenants of the STP which shall eventually 10 11 constitute the backbone of the STP and help ensure that the STP can deliver its most important designated functions; 12
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c) Possibility of clusters and spin-offs of universities into science and technology parks.

15 Sec. 10. Proof of Social Benefits. - If the national government or any local government unit, or through a government corporation or state university, finances 16 the development of and STP or provides other incentives such as tax exemption or 17 reduction, the said STP shall sufficiently prove that it provides social benefits such as 18 advanced research and development (R&D) or boosts economic development in the 19 20 region, province, city or municipality where it shall be located. The economic or social 21 contribution of an STP should be measured and monitored by a framework to be 22 developed by DOST in consultation with the National Economic Development Authority (NEDA). 23

Sec. 11. Incentives. - A qualified STP developer and/or locator, whose 24 25 activities may form part of the Strategic Investments Priority Plan, shall be entitled to such fiscal and non-fiscal incentives, including but not limited to income tax holiday, 26 special corporate income tax, enhanced deductions and such incentives as may be 27 provided under the National Internal Revenue Code, as amended. 28

29 Local government units are encouraged to provide for their own set of incentives according to their taxation power. 30

Sec. 12. Promotion of Science and Technology Parks. - The DOST and DICT
 shall regularly develop, guide, assist or spearhead programs, projects and activities to
 promote science and technology parks.

Sec. 13. *Linkages to Existing Projects and Initiatives Anchored on Innovation.*The DOST, DTI and DICT shall ensure appropriate linkages between existing
projects and initiatives anchored on innovation and STP closes to their location or area
of interest and shall assist stakeholders in pursuing linkages.

8 Sec. 14. *Implementing Rules and Regulations.* – The DOST, DICT, DTI, DOF, 9 and DPWH, in coordination with other industries concerned, shall issue the necessary 10 rules and regulations for the effective implementation of this Act within a period of 11 ninety (90) days after its effectivity. The non-promulgation of the implementing rules 12 and regulations shall not prevent the implementation of this Act upon its effectivity.

Sec. 15. *Appropriations.* – The amount necessary to effectively carry out the provisions of this Act shall be charged against the current appropriations of the concerned government agencies. Thereafter, such sums as may be necessary for the continued implementation of this Act shall be included in the annual General Appropriations Act.

Sec. 16. *Repealing Clause.* – Any law, presidential decree or issuance, executive order, letter of instruction, administrative order, rule, or regulation contrary to or inconsistent with the provisions of this Act are hereby repealed, modified, or amended accordingly.

Sec. 17. *Separability Clause.* – If any provision or part hereof is held invalid or unconstitutional, the remainder of the law or the provision or part not otherwise affected shall remain valid and subsisting.

25 Sec. 18. *Effectivity.* – This Act shall take effect fifteen (15) days after its 26 publication in the *Official Gazette* or in a newspaper of general circulation.

27 Approved,