

# DevPulse

NEDA Development Advocacy Factsheet

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## Science, Technology and Innovation (STI) Empowers Filipinos

Science, technology and innovation (STI) can empower small businesses by improving their productivity and the quality of their products according to Deputy Director-General (DDG) Margarita R. Songco of the National Economic and Development Authority (NEDA).

At the 108<sup>th</sup> anniversary of the Department of Science and Technology (DOST)-Industrial Technology Development Institute held last July at the DOST Executive Lounge in Bicutan Taguig City, DDG Songco said STI helps conceive new applications for existing technologies and converting these into commercially viable products and enterprises thereby paving the way to economic growth and development.

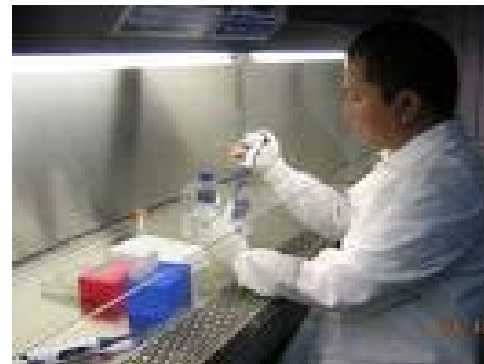
“We will not be able to achieve our goal of fighting poverty and bringing prosperity to the greatest number of Filipinos without innovations in STI,” she stressed.

STI, through knowledge creation and the transfer and promotion of technology-based entrepreneurship, has contributed to the country’s economic growth and poverty reduction based on the Medium-Term Philippine Development Plan (MTPDP) 2004-2010.

Community-based enterprises such as Lety’s Buko Pie, Betis Crafts, Inc., Lots A’ Pizza are some of the businesses that succeeded because of innovations in S&T. With the help of the DOST, these businesses improved due to successful technology transfer not only in machines and equipment but also in skills, abilities, knowledge, systems and processes needed to make a successful business.

### Knowledge Creation and Transfer

DDG Songco said that in line with the job generation and competition thrusts of the MTPDP, the government supports research and development (R&D) transfer activities in five areas identified to have the highest potential impact on poverty alleviation and the attainment of the Millennium Development Goals (MDGs). These areas are in biotechnology, information and communications technology (ICT), environment, alternative energy; and health and medicinal products. In 2007, the DOST allocated PhP590.4 million to finance R&D projects.



Biotechnology refers to the use of microorganisms to perform industrial or manufacturing processes. It focuses on agriculture and health where it can help increase the country’s food production and productivity as well as improve the quality of products. Information and communications technology (ICT), for its part, aims to provide rural communities with wider access to information, better delivery of essential information on disaster mitigation, and ensure better performance of computer networks for R&D applications.

For environment, studies focus on areas such as water desalination or the removal of dissolved minerals (including salts) from seawater or brackish water, use of biosensors, microbial degradation of waste, clean production technologies, among others. Alternative energy looks into alternative feedstocks for biofuels, testing of fuel-saving devices/additives, alternatives to liquefied petroleum gas (LPG), Jathropa, and others. Health and medicinal products focuses on vaccine development, cancer genetics and herbal medicine that will help improve Filipinos’ well being.

### STI Programs and Projects

To promote STI in the country, the Small Enterprise Technology Upgrading Program or SET-UP has been established to encourage and assist SMEs. Other programs and projects include the Technology Innovation for Commercialization (Technicom), *Techno Gabay* Program, the Filipinnovation strategy, the NEDA Knowledge Emporium, among others.

Updates on these programs and projects based on the MTPDP reveal the following:

- In 2007, **SETUP** provided technology acquisition and upgrading assistance to 811 existing SMEs as well as helped establish 70 new SMEs. The Program aims to provide S&T services to SMEs such as: (a) technology upgrading and acquisition; (b) packaging and labeling; (c) product development; (d) standards development and identification; (e) technical consultancy and training; and (f) networking and linking assistance.

**Small Enterprise Technology Upgrading Program  
Accomplishments (Actual versus Target)**

PERFORMANCE INDICATOR	2005		2006		2007	
	TARGET	ACTUAL	TARGET	ACTUAL	TARGET	ACTUAL
No. of existing firms assisted	715	727	601	800	628	811
No. of new firms established	58	66	85	105	88	70

Source: Department of Science and Technology (DOST)

- **Techno-Gabay Program** seeks to intensify S&T applications in farming communities by establishing and maintaining Farmer’s Information and Technology Services (FITS) centers in partnership with local government units (LGUs) and rural-based organizations. A FITS center is designed to provide computer-aided information and training services on farming technologies that have been successfully tested and showcased by selected *Magsasaka Siyentista* in local areas. As of 2007, there were 295 *Magsasaka Siyentista* all over the country while 40 S&T-based farms focusing on priority commodities have been established. As of June 2008, the total number of FITS centers reached 408.

**Number of Fits Centers**

	As of End June 2008
<b>Total No. of Fits Centers</b>	<b>408</b>
No. of operational FITS Centers maintained	372
No. of New FITS Centers Established	36
No. of clients served	41,243

Source: Department of Science and Technology, 2009 Proposed Budget

- The **TECHNICOM Program** aims to fasttrack and promote the transfer of technologies developed by the S&T community through interventions such as commercial prototype development, pilot scale production, intellectual properties (IP) protection, negotiation and licensing. From 2007 to June 2008, a total of seven technologies were funded for piloting and commercial prototyping by the government;
- Greater productivity in industry, farming communities and among SMEs continue to be promoted through the **NEDA Knowledge Emporium**, a one-stop web portal for sharing

and exchanging productivity enhancing technologies and experiences. As of 2007, a total of 580 documented best practices/technologies were posted in the Emporium web portal;

- To harness STI in the country, the National Innovation Strategy called “**Filipinnovation**” was launched on November 26, 2007 through a partnership between the government and the private sector. This strategy calls for the active participation of all sectors to strengthen the country’s national innovation system.; and

- Other STI initiatives include the creation of the following: (a) **Presidential Coordinating Council on Research and Development (PCC-RD)** on February 16, 2007 through EO 604 to coordinate R&D activities and oversee allocation of R&D

budgets to attain a combined private and public funding level of 0.5 percent of gross domestic product (GDP) by 2010, among others; and (b) **Congressional Commission on Science and Technology and Engineering (COMSTE)** to review and assess the state of competitiveness of science, engineering and technology development. Among its tasks is to undertake a thorough review of science education in public and private schools, particularly at the graduate level.

DDG Songco said that while government strives to provide an enabling environment for new technologies to be developed, the private sector leads the way in commercializing the innovations and in the process, create jobs. She urged entrepreneurs, venture capitalists and IT consultants to lead the innovation effort and empower small businesses.

**STI in the Regions**

Under the MTPDP, the STI infrastructure, particularly the facilities for testing and calibration and packaging services, shall be decentralized to the regions.

Technology foresight shall be instituted to systematically look into the longer-term future of STI, the economy as well as society. Efforts to identify the areas of strategic research and the emerging generic technologies likely to yield the greatest economic and social benefits particularly at the regional levels shall be pursued. Results of technology foresight will be used as sound basis for building decentralized STI capacities.

Sources: Updated Medium-Term Philippine Development Plan, 2004-2010; NEDA Deputy Director Margarita Songco’s speech delivered during the 108th anniversary of the DOST-Industrial Technology Institute held last July 2009.