



Launching of TRA Review Results, Promotional Campaign

DOST-ITDI readies 27 technologies for market

The Department of Science and Technology's Industrial Technology Development Institute (DOST-ITDI) gears up for the culmination program of its innovative pre-commercialization strategy project that covered 27 new technologies on March 29, 2019 at Crimson Hotel, Muntinlupa City.

The event, with the theme, "*Tayo Na Pillipinas, Angkinin AmBisyon Natin!* (Ugnayan sa Taas-Antas ng Teknolohiya ng ITDI), aims to boost the transfer of generated technologies for public use and consumption. The event will be a gathering of industry partners across relevant sectors that can be potential adopters of these new technologies.

This activity is the outcome of DOST-ITDI's partnership with the Department of Trade and Industry's Export Marketing Bureau (DTI-EMB), when the former decided to embark on a new technology check strategy to rank market readiness of 27 technologies that it developed.

Through a systematic, metric-based process and report, a *Technology Readiness Assessment* (TRA) Review was conducted to assess the readiness level and maturity of technologies. It covers technology; manufacturing and quality; and programmatic aspects such as customer focus and documentation.

Adelia M. Guevarra of the Technological Services Division (TSD-ITDI), TRA Review proponent and project leader, explains that TRA is a tool for:

- Managing technology risks;
- Reducing company vulnerability to adoption of young technology;
- Buoying prudent use of government funds and other resources;
- Redirecting DOST-ITDI'S research and development policies and thrusts; and
- Encouraging collaboration among researchers within the institute while building partnerships with industry.

Here, DOST-ITDI used a schematic adopted from Air Force Research Laboratory. Developed by William Nolte of AFRL, the Excel-based TRL calculator was lifted from the open sources of the Defense Acquisition University.

With Nelia Elisa C. Florendo as project chair, Dr. Violeta B. Conoza as co-chair, and Delia D. Gotis as assistant project leader, TSD led 22 technology generators and a project management team of 10 in the Review of 12 of DOST-ITDI's food processing, 6 health and wellness, 6 green engineering, and 3 nano technologies.

DOST-ITDI further engaged six trade partners from EMB and 15 industry influencers selected from a short list of 229 top companies of the country to form five TRA Teams. Here, EMB rendered its expertise on determining technologies, which make business sense and have business value; how to best develop and expand export trade prospects of the 27 technologies; and selecting which from the 27 technologies/ products to trade and further develop following current market trends.

Together, the teams assessed the readiness of the 27 technologies and their Project Readiness to Transition level. Those chosen for the food, chemical, environment, and materials industry were further narrowed down to five. These innovations will be pitched during the said culminating activity.

DOST *Tablea*. The DOST *Tablea* or chocolate liquor in a bar is a solid chocolate that can be used to make a hot chocolate beverage. It is made from local cacao beans using fermentation and roasting processes that have been improved and standardized to give the best quality chocolate drink. The DOST-ITDI's formulation produces a chocolate drink that is less grainy (particle size of T225), giving it a smoother consistency without the burnt aftertaste.



Drum Dried Fruit Flakes. Drum drying is an effective method of drying liquid from food materials, resulting to longer shelf-life. This technology is applied by DOST-ITDI to various local fruits to make it an on-the-go and nutritious snack, known as the Drum Dried Fruit Flakes. Fruit flakes are crunchy food items with the color, aroma, and flavor of the original fruit material.





Dietary Fiber from Calamansi Waste. Dietary fiber powder from calamansi wastes is an insoluble type of fiber that has major health benefits. This dietary fiber powder can be used as functional ingredient for food and supplement production. It can also be used as a substitute for uncooked quick-cooking oats and can be taken as dietary fiber capsules.

Compact Wastewater Treatment System for QSRs. The Compact Wastewater Treatment System for quick service restaurants (QSRs) is a low-cost, sustainable, and compressed wastewater treatment system that can be used to treat high-organic wastewater coming from stand-alone QSRs.



Nanoclay Production Technology. Nanoclay is a multifunctional additive or filler in polymer nanocomposites. It is processed from local bentonite ore through organic activation. This technology is a multifunctional nanomaterial additive for plastics/polymers, rubber, paints, and adhesives that can improve material properties.



Results of the project have been compiled into a 226-page compendere supported by 27 TRA full reports. These are expected to impact some 115,748 establishments of the manufacturing sector; 119,718 accommodation and food service; and 56,466 other services establishments.



ITDI **S&T MEDIA SERVICE**

www.itdi.dost.gov.ph

To date, DOST-ITDI is the first in the Science Department and may be the 10th agency to use the tool after the National Aeronautical Space Administration, Department of Defense, Federal Aviation Administration, Department of Energy, and the oil and gas industry of the USA; European Commission in Belgium; European Space Agency in France; Turkish Department of Defense; and the Building Canada Innovation Program.

With DOST-ITDI's vision of propelling development as providers of technologies and services for industry, the event is a bold step towards encouraging partners to adapt technologies made by Filipino scientists. (AMGuevarra and MVAtienza\\TSD)

###