

ITDI joins the 2024 PROPEL Showcases biosensors for microbe detection



DOST-ITDI joined stakeholders in the launch of the DOST Program PROPEL held on December 4, 2024, at The Manila Hotel in Ermita, Manila City.

PROPEL, is an initiative to empower Filipino scientists, innovators, and startup businesses to turn ideas into market-ready solutions.

In his keynote, Science Chief Dr. Renato U. Solidum Jr. said that PROPEL envisions elevating Filipino innovations to meet the challenges and opportunities of the rapidly evolving world and that it embodies a strategic shift focusing on the development of science-based technology solutions and ensuring that the solutions reach their end-users, discovering and transform markets, and create tangible impact both locally and globally". "... elevate Filipino innovations to meet the challenges and opportunities of our rapidly evolving world."

He added, "PROPEL embodies a strategic shift focusing on science-based technology solutions and ensuring that these reach the end-users, discovering and transforming markets, and creating a tangible impact locally and globally."

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He also cited that as consistently emphasized during the World Economic Forum, STI-driven innovations are the cornerstone of social and economic transformations. It noted that only nations that harness STI can survive and thrive in a world of technological disruptions.

The Chief is thus optimistic about a future where Filipino ingenuity and scientific rigor become engines for competitiveness, productivity, and growth in the global knowledge economy.

In support, ITDI staged its new R&D initiatives on Carbon Quantum Dots (CQDs) sensors and nanocomposite laminates during the event.

CQDs is a new class of fluorescence small carbon nanoparticles with a particle size of less than 10 nm which has vast applications for bioimaging, biosensing, and disease detection. Here, intelligent packing systems for food safety are expected to grow in the coming years.

Foreseeing this opportunity, ITDI is now undertaking studies on CQDs and will incorporate these biosensors in patches that will serve as a visual indicator of the presence of foodborne microorganisms in perishable goods.

Current biosensing techniques in the Philippines are used in environmental monitoring. ITDI's technique is to focus on food safety.



The day concluded with the viewing of exhibits by DOST officials and guests. (DDGotis\ ITDI S&T Media Service; Photo credits: DOSTph)

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