



27th UNCSTD in Switzerland boosts KEEP UK-ITDI's hydrogen energy shot

It promises to put out "what is new, what matters, what is changing, what the impact is – and how this affects development and a sustainable future for all."

For the Philippines, the Commission on Science and Technology for Development (CSTD), home to discussions on S&T of the United Nations, is keeping its guarantee.

On April 15, 2024, it held its 27th Annual Session in Palais des Nations, Geneva, Switzerland, where two days later, it opened to the public the United Nations S&T Global Cooperation Exhibit, which, together with the Session, ran until April 19.

In its 27th session, CSTD emphasized two priority themes: "Data for Development" and "Global Cooperation in Science, Technology, and Innovation for Development." Here, the Philippines, represented by DOST through three of its agencies, namely, DOST-ITDI, DOST-FPRDI, and DOST Region XI, showcased projects currently being implemented through international collaboration to acknowledge the second priority theme.

While the Commission has 43 member states elected by the Economic and Social Council, only 17 participated in the exhibition.

For DOST-ITDI, Dr. Ronaldo P. Parreño, Jr. of the Chemicals and Energy Division (CED-ITDI) exhibited materials developed for specific fuel cell components that will address the current technological limitations of fuel cells. The materials were developed in ITDI's new fuel cell R&D laboratory and testing facility which aims to develop the next-generation proton exchange membrane fuel cell (PEMFC). The industry focuses on producing expensive, high-efficiency, zero-emission fuel cells. The next generation PEMFC is targeted to be cheaper and have improved performance,



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thus making local commercialization possible. Because fuel cells produce electricity while emitting only heat and water as byproducts, they are a green alternative to fossil fuel sources and one of the best options for long-term energy investment.

Meanwhile, the energy insights and experiences of the University of Birmingham in England have expanded the efforts of the Fuel Cell R&D Laboratory and Testing Facility. The international collaboration is the fruit of the 2023 Knowledge Exchange for Economic Partnerships between Innovate UK EDGE and DOST-ITDI (KEEP UK-ITDI). Research cooperation on electrode catalyst development with the Research Center for Zero CO₂ Emission with Functional Materials, University of Tsukuba in Japan, is ongoing.

Other technologies exhibited in the Philippine booth included Philippine tannins, a natural source of phenolics used in leather processing and fiber dyeing of DOST-FPRDI, and the SECCI (social and human sciences, education, culture, and communication and information), and SETI (science, engineering, technology, and innovation) for the SDGs Scorecard developed by DOST Region XI.

DOST-FPRDI partnered with the Bern University of Applied Sciences and received funding support from the Swiss National Science Foundation, while DOST XI cooperated with the UNESCO Office in Jakarta.

The 27th CSTD Annual Session provides an intergovernmental forum for discussion on timely and pertinent issues affecting science, technology, and development since 2006. Outcomes of the CSTD session include providing the United Nations General Assembly and ECOSOC (United Nations Economic and Social Council) with high-level advice on relevant science and technology issues. (AMGuevarra\ ITDI S&T Media Service)

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