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[\[Display Technology\] ITRI Awarded as Gold Winner for Its FlexUPD at the WSJ Technology Innovation Awards](#)
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ITRI Latest News (2010/09/29) The Wall Street Journal has announced the winners of the 2010 Technology Innovation Award. ITRI stood up among top international companies including Nokia, Microsoft and Ford with its ultrathin FlexUPD display technology to win this prestigious award. It is the first time that Taiwan has won two major international awards, the WSJ Technology Innovation Award and the R&D 100 Award, for a single technology. It also represents a big breakthrough for Taiwan in flexible display development. ITRI also received a runner-up award in the semiconductor category for its MDPS (Micro-Deformable Piezoresistive Sensor) technology.

The high quality material technology for flexible display from Taiwan's ITRI stood out from 597 entries to become a winner of the Technology Innovation Award. In WSJ report, Barry H. JARUZELSKI, an Innovation Awards judge and a partner at the world renowned consulting firm Booz & Co., saw great potential in this display technology. He said that a stable, viable and cost-effective flexible-display technology opens the door to a wide range of truly new applications. Another judge, William WEBB, director of technology resources for Ofcom in the U.K., said, "This flexible display technology looks like a simple and elegant solution to a manufacturing problem."

"Being flexible is seen as the up-and-coming trend in electronics. The key to this award winning FlexUPD technology is its ultra-thin and transparent soft plastic substrate," said Dr. Janglin CHENG, General Director of ITRI's Display Technology Center. Once the transistors are layered on the plastic substrate and enclosed, it can be cut from the glass stage to make ultra-thin and rollable display that is only 0.01 cm thick. The secret of success is instantaneous removal through the use of a non-stick de-bonding layer material specially developed by ITRI which allows smooth removal of the plastic substrate from the glass stage.

Besides enabling, this substrate can be easily cut from a glass stage to make 0.01 cm thin flexible e-paper. The secret is in the instant removal process where ITRI's newly development release layer material plays a key role. It is like a layer of non-stick material between a crepe and the pan. In addition to letting the crepe slip off the pan easily, the non-stick layer won't damage the filling in the crepe. This innovative technology is far more advanced than the metal film substrates and laser removal technology used by world-leading manufacturers. Simple-to-use and low cost, the technology will help panel display manufacturers transfer their advantage in glass manufacturing processes over to flexible display production. The inspiration behind this idea originated from crepe-making. ITRI's division directors Cheng-Chung LEE and Tzong-Ming LEE were the two people who came up with this innovative idea.

ITRI has also recently unveiled a 6-inch color flexible AMOLED color e-paper that can use the flex UPD technology to develop innovative applications. Even when folded, the ultra-thin 0.01 cm screen can still continue to display an image. The folding radius can reach 5 cm or less and brightness is 150nits. The screen may be scrolled up to 15,000 times without affecting video play function. Industry response was broadly enthusiastic after the unveiling of this technology. Mass production is scheduled to begin within one year. This technology will have a revolutionary effect on the development of portable flexible e-books and flexible hand-held screens and flexible touch films.

Further Information:

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[National Science Council International Cooperation Sci-Tech Newsbrief](#)

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