OLED Display Forecast 2015-2025: The Rise Of Plastic And Flexible Displays

LED displays are thinner, lighter, and offer better color performances compared to backlit liquid crystal displays (LCD). OLED displays are already mass produced for mobile phones and OLEDs will continue gaining market share against LCD technology.

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The next evolution is plastic and flexible displays. IDTechEx expects the first flagship phone with a flexible display to ship in 2017. Based on this scenario, the market for plastic and flexible AMOLED displays will rise to $16bn by 2020.

The rise of plastic and flexible displays will be accompanied by a shift from glass substrates to plastic substrates such as polyimide. However, glass-based displays will remain an important technology, especially in TV applications where scale-up and cost reduction are still big challenges. Flat and curved OLED TVs were recently launched by Samsung and LG to critical acclaim. However, manufacturers are hedging their bets by investing in LCD backlights enhanced with quantum dots. These so-called "quantum dot LCD" TVs will be positioned as a cheaper upgrade from existing sets. Nevertheless, the market for OLED TV panels will experience steady growth over the next decade, with a projected 25% CAGR.

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Based on a deep understanding of the technology roadmap and the existing bottlenecks, IDTechEx has forecasted the OLED display market in eight segments:

- Mobile phone displays
- Tablet and notebook displays
- TV panels
- Automotive and aerospace
- Wearable electronics
- Industrial and professional displays
- Microdisplays
- Other applications

DTechEx has been tracking printed, organic, and flexible electronics since 2001. This report gives a unique perspective on the OLED display market, leveraging the full expertise of our analysts and the direct interviews with companies in the value chain.
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