## Outsourcing to China in question

ver the past two decades, a massive shift of manufacturing to China has occurred, especially for high-volume, low-mix electronics products. In recent years, however, a trend away from China has occurred, according to industry watchers and component distributors. Rising energy, transportation, and labor costs: IP (intellectual-property) issues; and counterfeit-IC problems are among the reasons they cite for the shift.

"We've seen a flurry of people jumping on the bandwagon to move from China," says Charlie Barnhart, co-founder and managing principal at Charlie Barnhart and Associates LLC (http://charlie barnhart.com), a company that studies outsourcing. "The trend started in 2006 as people started to see that [outsourcing to] Mexico was cheaper than [to] China."



Barnhart also notes that many OEMs are finding that the most efficient locations for outsourcing are near the end markets. "The cheapest and most effective outsourcing is building in the region for the region," he says. "Each region has a low-cost solution—Mexico for the Americas and Eastern Europe for Europe."

For a growing number of OEMs, proximity to the end customer has become the overriding concern in outsourcing. "I talk with customers about where they're going to outsource, and the numberone consideration is, 'Where is my customer?'" says Chuck Delph, senior vice president of sales at Avnet Electronics

Marketing Americas, a division of Avnet Inc (www.avnet.com).

Even with the problems of manufacturing in China, some manufacturers have captured the benefits and swear by China's advantages. "Some OEMs are still pounding the table about the benefits of China," says Adam Pick, director and principal of EMS/OEM (electronics-manufacturing services/original-equipment manufacturing) at iSuppli Corp (www.isuppli.com). "They say, 'Yes, it was hard, but the result was astounding."

Meanwhile, manufacturing is once again warming up to North America. Companies including GlobalFoundries, Silicon Border, and Texas Instruments (www.globalfoundries.com, www.siliconborder.com, www.ti.com) have recently announced plans to open plants in the United States and Mexico.—by Rob Spiegel