Perspectives on Changes in China (Part 1)

China has been the subject of much debate throughout the manufacturing industry as more companies have considered it an option for reducing costs. However, quality concerns and increasing economic factors have caused some to rethink this outsourcing strategy. In this month's Perspectives feature, industry leaders share their thoughts on whether China remains a viable option for medical device manufacturers or if business will relocate elsewhere.

How will changing economic factors in China impact the trend to outsource there and will that mean a return of industry to the U.S. or growth elsewhere?

Joe Held
Asia Pacific Manager, Omnetics

North American manufacturers looking for low cost labor and materials have looked towards China in recent years. With recent headlines filled with horror stories of tainted products from toys to food, companies are forced to weigh cost savings against quality concerns. But, with increasing labor and material costs in the United States, manufacturing is unlikely to return to the U.S. any time soon without major automated processes in place. Medical manufacturers unwilling to compromise product safety are moving production facilities into other emerging markets such as India, Costa Rica, and Brazil where labor rates are still low and quality standards can be maintained.

We must also expect China to venture more into the design side of medical device manufacturing. They will no longer just be a cheap manufacturing source. China will become more vertically integrated on the design side. The world leaders in medical design—U.S., Germany, and Japan—will have to stay on the cutting edge of technology to survive this formidable new competitor.

Component companies in the United States interested in selling products into the Chinese medical market need to understand the dynamics involved. In the United

States, private venture capital funds medical start-ups. In China, on the other hand, design is driven by government money. When searching for design engineers in China, look towards the universities such as Shanghai Jiaotong, Tsinghua, and Fuijian Medical University.

The new world economy is bringing major change to the face of the medical market. The boom in China has slowed and their focus is shifting. Other emerging markets are at various stages in their development. India is experiencing the kind of growth China had 10 years ago and many South American countries are on the verge of becoming major players in the medical market.

Russell Johnson
President and Founder, China Array Plastics LLC

Economic forces will not have a significant impact on outsourcing to China. Increased labor benefits are being added to base hourly rates that are extremely low compared to labor rates in the West. Material cost increases will impact countries more or less equally as commodity prices are increasing worldwide; in fact, China has excess capacity in steel and plastics, which allows it to have relatively lower costs than other parts of the world.

The key issue affecting outsourcing to China is quality control—specifically *consistent* quality control. The recent milk scandal, following on the heels of scandals in toothpaste, dog food, lead paint in toys, etc., creates anxiety for companies outsourcing to China, and seems to be an entrenched problem in the Chinese supply chain. In each of the aforementioned cases, it was a single link in the supply chain that created the problem with devastating effect across entire industries. The question for a firm sourcing in China becomes how to ensure the integrity of not just its direct supplier, but the sub-suppliers it deals with. Implementing this type of vertical QC program across multiple companies is a difficult and expensive challenge.

Therefore, it is quality control concerns, not economics, that will drive some countries back to the U.S. for sourcing. With the gap between the euro and the dollar starting to look more permanent, European firms are finding the U.S. to be a good compromise between lowering costs and ensuring quality. Other Asian countries probably will not benefit from China’s quality control scandals—Japan and Taiwan because they are too expensive; Vietnam and Thailand because they have unreliable quality control systems as well.

Multinationals and large OEMs that can impose strict quality control on the entire supply chain in China will continue to benefit from the lower cost production available there.

Jacques Hoffmann
President, InterTech Development Company

While it’s true that China’s rapid development does mean higher wages and higher material costs, it really doesn’t appear that this will impact outsourcing to China any time soon. There is still a strong bottom line advantage for companies that find ways to source test-intensive manufacturing services from China, *if* the inevitable quality issues that arise are successfully managed. In Chinese production facilities InterTech works with, a variety of “poka-yoke” methods have been used. Test fixture design and the use of sensors help ensure that only the correct parts have been properly loaded prior to test. In some plants, parts are bar-coded and scanned to initiate the testing sequences. Ethernet-linked databases are then able to track parts and anticipate quality control issues.

Actually, InterTech’s services to create turnkey assembly and test solutions—for both leak testing and functional testing—are in growing demand for companies using the globally-distributed manufacturing model that have or are building Chinese production facilities. Rising wage scales in China are adding to the existing problems of rapid worker turnover, which in turn, create a need for our type services. Engineers with trouble shooting ability are in very short supply in China, and they tend to move from place to place. InterTech’s global response team is helping companies with Chinese facilities involved in test-intensive assembly operations get the Gauge R&R they need, despite this turnover.

In the longer term, we do expect that the move to Chinese production facilities will level off, but that this will not likely spell a return to the U.S. for manufacturing. Rather, one can expect Vietnam and India to take off where Chinese production leaves off.

Benjamin Bouchard
Vice President, International Market Development, GW Plastics Inc.

GW Plastics has been involved in the China market for over five years, with a manufacturing presence for over three years. Our primary customers are large western companies, most of whom have their own manufacturing presence in China. Compared to North America and Europe, many of GW's top global healthcare and automotive companies see Asia as a major growth region. This is due to the growing emergence of a Chinese middle class. Companies are very interested in servicing this market, and are very tempted by the growth potential. Chinese consumers are beginning to demand the same higher level of products and technology that are available in the West. The primary focus for our customers is to build a market position in the growing China market followed by developing a low-cost manufacturing footprint for the export market—to NAFTA and the E.U. regions.

GW Plastics has seen steady growth since the company was founded in 1955. While direct costs are rising, the level of technology, market size and productivity are also rising. We do not see a return to U.S. manufacturing as a trend but we do see a continued increase in the complexity and sophistication of the products that are manufactured in the U.S. At the same time, it's fair to say that market growth in China may be somewhat slowed by concerns about intellectual property protection, environmental problems, human rights issues, as well as the recent quality control issues that have been widely publicized.

GW Plastics, with manufacturing facilities in North America, Mexico, and China, has seen some lower technology, high labor activities flee China for even lower cost regions, but does not see a significant shift now or on the horizon. We do not see a trend of manufacturing returning to U.S. but increasing transportation costs may slow the shift to Asia in the future.

Debra VanSickle
Vice President and Sales Manager, Peridot Corp.

The playing field will eventually level to make China fully competitive in medical manufacturing outsourcing. But it will take some time, as China can not be expected to change its workforce climate overnight. To put good manufacturing practices into place, China must not only offer its workers higher wages and better benefits, but also offer the global market quality assurance systems and environmental practices matching those ingrained in the U.S. for decades.

So in the short term, I feel the U.S. and Europe will continue to be looked upon as the place for medical device manufacturers to source critical work. For now, any consideration of outsourcing to China must be carefully weighed against the travel costs, language barriers, and cultural differences. By contrast, we are seeing steadily growing medical manufacturing markets in Costa Rica and Puerto Rico.