

## World Markets

### **A Low-Cost Location Offered by Europe-Based Providers**

History tells us that it is largest EMS providers whose presence puts a low-cost manufacturing center on the map. But there is a low-cost location whose development to date has progressed without any help from the biggest EMS layers. Maybe that's why Tunisia has not achieved industry-wide notoriety as a low-cost destination for outsourced products sold in Europe. Tunisia may not have the visibility of Romania within the EMS industry, but some say Tunisia offers lower labor costs than this Eastern European rival. What's more, Tunisia possesses the logistical advantage of being a ferry ride away from the French port of Marseille. Tunisia has become a low-cost option for clients of Riverwood Solutions (Menlo Park, CA), a managed services provider that has evaluated EMS facilities there on behalf of OEMs and other customers. The country was somewhat of an eye-opener for Riverwood.

"We were a little bit surprised that it hadn't seriously made our radar screen because for certain product types it's a really good solution especially with some of the price inflation you've seen in wages and facilities cost and everything else in Eastern Europe," says Ron Keith, COO of Riverwood Solutions. One way to compare costs is to look at the price of hiring skilled and professional labor. Imagine you're setting up a substantial operation in or near Tunisia's largest city, Tunis. "I think you could draw good engineering talent and good operating talent for a cost that's 25 percent less than Romania and probably 50 to 60 percent less than a Hungary or a Poland," says Keith. But he points out that Tunisia's workforce of about 3.2 million is not unlimited.

EMS provider AsteelFlash Group (Paris, France), which operates two plants in Tunisia, at one time also had an activity in Romania. The group pulled out of Romania because labor costs and productivity favored Tunisia. In Romania's urban areas where providers must locate, there is a lot of job hopping, which drives up labor costs, says Gilles Benhamou, CEO of Asteel-Flash Group. Labor rates are more stable in Tunisia, he reports. The relative stability of labor rates in Tunisia is "why now Tunisia is really competitive even with China," says Benhamou. Of the three Europe-based providers that MMI has identified as having facilities in Tunisia, AsteelFlash has the largest presence and the longest history there. Together, the company's two plants in Tunisia employ 1,000 people and contain 161,000 ft<sup>2</sup> of facility space. AsteelFlash has

maintained a subsidiary in Tunisia for nine years, and Benhamou's experience there goes back 15 years through a former company he owned. LACROIX Electronique (Vernsur Seiche, France) and Zollner (Zandt, Germany) also operate in Tunisia.

The former offers 7,500 m<sup>2</sup> of manufacturing space in Zriba, and the latter's site in Beja contains a production area of 661 m<sup>2</sup>, according to company websites. AsteelFlash's Tunis plant does high-volume work, while the facility in Fouchana, 15 km from Tunis, specializes in low-volume, high-mix products. In Tunisia, AsteelFlash manufactures, for example, metering products, lamps including those with LEDs, equipment for aeronautics, energy products, railway products and medical PCBs. "I think the product types that work fairly well for Tunisia are consumer products or relatively simple types of enterprise products, various other products or just populated PCBs that require either by design or by nature of their volume and mix a reasonable labor component," says Keith of Riverwood Solutions. But there are products that Riverwood would not put in Tunisia. "The much more sophisticated enterprise products and more sophisticated telecommunications types of products don't make a whole lot of sense," he says. Tunisia's proximity to Western Europe cuts time in transit for both products and people. From a Tunisia factory, AsteelFlash will guarantee four-day delivery to customer sites in Europe, says Benhamou, and typically products will spend three days or less in transit. Tunisia is also two and half hours from Paris by air. Customer personnel can make frequent trips to Tunisia without busting budgets or killing a week. This proximity comes in handy for the customer when a process needs to be qualified or a quality issue requires attention. "Some customers send people once a month, and not necessarily the same people," says Benhamou.

In addition, the French language spoken in Tunisia becomes an asset for customers who rely on French for their communications and documentation. But the ideal low-cost location has yet to appear, and Tunisia is not without at least one drawback – its supply base. Still, Tunisia's supply base is improving for plastics, metal parts, cables and coiling winding as more and more suppliers come in. Note that AsteelFlash has an advantage when it comes to plastics because the provider has integrated plastic molding within its Tunisia operations. Nevertheless, Tunisia lacks the support of a local supply base, at least for now, in two areas: PCBs and components. Benhamou explains that the Tunisia market is not big enough to justify investment in a high-end facility for PCB fabrication. Tunisia's supply chain may well determine the extent to which Tunisia develops as a center for EMS. According to Keith, the catalyst that results in the development of a low-cost location "is always the total supply chain cost." He believes that Tunisia has the necessary prerequisites – basic infrastructure, proximity, and the capacity to produce the required talent. "In my mind, Tunisia has everything it needs. It just needs a major supply chain catalyst," says Keith. Riverwood's CEO, Matt Ryan, doesn't see providers entering Tunisia in the short term, unless there is investment by a company that doesn't have a footprint in Central/Eastern Europe. "Maybe one of the Taiwanese guys drops in," says Ryan. But as for other big players, "in this environment there's just no way in my opinion they would go make a play there right now, based on their extensive existing infrastructure in Central and Eastern Europe," he notes. Expanding on this point, Keith adds, "Tunisia operations would in the best case be competitive with and the worst case cannibalistic to those legacy operations." Still, the global downturn may prove a good thing for existing EMS operations in Tunisia. Keith says he

wouldn't be surprised to see pricing pressure from customers cause providers to move some production from their Western Europe plants to their facilities in Tunisia. "The incumbent guys who are looking at incremental costs I think are going to grow their operations in Tunisia much faster than they would have if the economy stayed good," he says. A case can be made that the current environment will also make Tunisia more attractive for new business. If you choose the right type of product consumed in Western Europe and model the total cost of sourcing it from various low-cost locations, "I think a facile analysis on a lot of products is going to show that Tunisia is pretty compelling," says Keith. "And right now when people are just getting hammered on costs," he believes some of the more thoughtful OEMs will look at possibly placing some work with the existing providers in Tunisia. Or maybe they'll just consider "whispering in the ears of their current EMS provider, 'Hey, have you guys thought about this,'" adds Keith.

Tunisia may also benefit from European OEMs looking to outsource production from their captive operations. "They may well start to consider Tunisia as being an area that can meet their cost needs and not have it as competitive for resources as it is in Central and Eastern Europe," says Ryan.

In spite of the global downturn, AsteelFlash's Q1 revenue from Tunisia should increase about 30% year over year, according to Benhamou. "That means we will have a growth this year more than 30% in Tunisia," he says. Since Tunisia is a Muslim state in North Africa, some companies in the Manufacturing Market Insider, March 2009 7 West might have concerns about its stability vis-à-vis radical Islam. But Benhamou points out, "It's a very stable Region, and nobody knows." More people are likely to learn about Tunisia as its cost and logistical advantages become apparent.