

# Siemens: Getting 'Lean'

Just 18 months ago Tilo Brandis was named president of what is now Siemens Logistics and Assembly Systems (siplace.com). Though only 36 at the time, Brandis had already successfully run a pair of subdivisions within the Siemens Transportation Systems Group.

Still, he was tasked with building on what was already an 11,000-employee, €3 billion division. CIRCUITS ASSEMBLY's Mike Buetow caught up with Brandis last month. Excerpts:

**CA: We've seen a trend toward smaller, more flexible and modular equipment and platforms. Can we expect this to continue for the foreseeable future?**

Yes, the modular platform architecture strongly supports greater requirements for flexibility, even for traditional "volume only" customers. Fixed production lines that handle only a limited product spectrum are a thing of the past in Europe and the U.S. They are inflexible for today's requirements. Modularity is the overarching imperative. Of particular interest are gantry machines. These can be used as standalones or in a network with others for improved throughput and even greater flexibility. I would look for these machines to be increasingly popular in meeting market demands.

**CA: What types of Lean Manufacturing is Siemens promoting?**

We are convinced that the principles and methods of Lean are now becoming important in electronics manufacturing. Everything that's superfluous must be eliminated from the production processes. At Siemens, we are addressing Lean with features such as faster changeover time with offline setup, virtual product build, visual factory, manufacturing transparency, shorter cycle times and long-term sustainable accuracy. Our goal is to help our customers reduce costs while providing a level of quality that can form the basis for zero-fault production. We have been successful in partnering with our customers to achieve, on average, 15% less scrap, rework, returns and waste. This equates to dollars in the bank for our customers.

**CA: Many companies have tried to offer turnkey manufacturing solutions, with marginal success. Can we expect buyers will continue to piece lines together, or have you seen any strong evidence of a trend toward turnkey procurement?**

There are companies that ask for the full-scale solution, and others only want parts of it. We see a trend toward complete solutions, as manufacturers especially in the U.S. and Europe have to decrease cost. To deliver tailored solutions, we must be prepared to partner with other leading companies. Siemens is not restricted to just one or two companies in a specific field. For us, the

key factor is that we always cooperate with the best partner for the specific solution – and this partner can be different in different areas of the world.

**CA: Can a maker of factory automation equipment capitalize on the push toward so-called environmentally friendly processes? Or will capex budgets be consumed by process equipment (reflow, wave and screen printing, AOI, etc.)?**

We support our customers [need] to capitalize from market demand. Of course, Siemens is working in conjunction with other equipment suppliers to ensure that processes will run smoothly and be environmentally friendly throughout the production chain. With our consulting expertise we consider all aspects for cost-optimized production.

**CA: Volkswagen, among others, has outsourced the actual in-plant management of various parts of their lines to the makers of the equipment. Do you see a day where electronics manufacturers will do the same?**

We don't believe that most electronics manufacturers will go to outsourcing actual in-plant management, but there will be many who rely on Lean portfolios to streamline processes with the help of qualified professional consulting and truly integrated logistics solutions for their lean production.

**CA: What are Siemens' technology goals for the next 18 months?**

With our new machine platform, Siplace HF, we've moved in the right direction, but this is just the beginning. We will soon have another generation of machines on which we will again build on [such] features as modularity and flexibility, speed and accuracy. Modularity and flexibility will always be the basis of our success. Of notable importance is the adoption and processing of 01005 size passive devices, high-speed flip-chip processing and stacked die applications. Siemens is addressing these technologies with its next generation of equipment.

Attention will undoubtedly be focused on getting more from less and improving material management throughout the supply chain. Whether manufacturing in a high-mix environment or not, a true build-to-order and lot size one capability will be required. Furthermore, the integration of line production processes into the customer's software environment will become increasingly important. Siemens already offers suitable solutions [in this area].

Our Lean solution enables manufacturers to remove all non-value activity from production. Overall, cost reduction in production and very flexible build to customer order capabilities are becoming more important. This implies modularity and software tools. With our progressive software tools we are able to optimize the entire production process and the productivity of production lines on different levels. ■



Siemens'  
Tilo Brandis