



Case Snippet: Value Stream Mapping for a Global Semiconductor Manufacturer



- **Situation & Challenges**

Our client was one of the top ten semiconductor manufacturing companies in the world. In line with its focus on manufacturing excellence, the client had been applying various industrial engineering techniques to increase speed, improve throughput and reduce costs. They were interested to learn how to apply Value Stream Mapping technique and tools to find opportunities for improvement and cost savings on top of what they had earlier determined using traditional IE methods.

- **Our Approach**

We conducted a two-day workshop on Value Stream Mapping for 20 participants comprising managers and engineers of the Assembly, Test and Module departments, and then followed by coaching services for the application of VSM technique and tools over a one-month period for three project teams. The activities included:



- Mapping the value streams for Assembly, Test and Module manufacturing processes
- Definition of operational metrics and data collection of WIP, cycle time, lead times, downtimes, changeovers, defects, distanced travelled, etc. for the value streams
- Gemba walks and using analytical methods such as Spaghetti and layout diagramming
- Current state mapping
- Determining gaps and goals setting
- Future state mapping
- Making recommendations for improvement

• Results

After four weeks of implementing the value stream mapping process, the Assembly, Test and Module project teams were able to identify additional improvement and cost savings opportunities on top of those that were earlier determined by other IE methods. The total costs savings or benefits calculated using the VSM approach amounted to some 1 million USD. The teams had presented their recommendations to the senior management for approval and the knowledge and experience gain were shared with other departments and subsidiary companies in the Asia-Pacific region.