



**Thought Leadership Forum  
for  
Automotive Industry  
17<sup>th</sup> May, 2010, Chennai**

## **Intelligent Automation and Operational Strategy**



## Background note for Partners and Panelists

**The competitive nature of business in the Automotive space tells a clear story – the battle is one between competing production chains and automation investments are following that trend.**

It follows, therefore, that Automation buying is not a simple procurement decision. Automation is clearly a strategic thinker's agenda as the technology permeates with continuous engagement. The full realization of benefits comes about over an extended lifecycle as the plant personnel understand and leverage with their own innovation.

The evolution of Automation technologies has gained considerable momentum over the last decade, giving rise to a host of new hardware and software features, while bringing along with it an engineering and engagement challenge, both for the solution provider and for the end user.

**Real-time Factory Automation is yet to emerge as a full-blooded engineering discipline.** There are a very large number of independent hardware suppliers, machine builders and integrators. They respond to unconnected specifications and acceptance procedures. Very often the different entities within a supply chain operate completely independent of the main OEM while determining the specifications of Automation investment. Is this a profitable way to keep moving or is there an alternate approach to look at?

Most users would want their **manufacturing and supply chain environment to be robust, easy to manage and reconfigurable.** The Top 5 success parameters that a business wants from its producing arm being:

- High Production Rate
- High Line Flexibility for Multiple Model Manufacturing
- High Line Availability
- Tight Supply Chain Integration
- Technology Absorption and Skill Upgrade

The investment in factory Automation ought to be directly geared towards unlocking the full potential of the linked factories. Thought leaders from the Automation Industry were asked to list down the **most intelligent advances in recent years** from their side. The consensus that emerged was around these features:

- Motion and Control Integration
- 'Plug and Play' Sensors for Networking Ease
- WIP Tracking & Surveillance
- 'Fail - to- Safety mode' programming
- Vision Inspection and Control Integration
- 'Real-time Data Transfer' for Remote Analysis and Decision Support
- Operator guidance through Visualization screens
- Embedded Energy saving features

**While these attributes may seem esoteric to many of us, they actually provide a real opportunity for creating that ‘competitive edge’.** How does that come about? Smart engineering, pro-active engagement during the selection and a novel concept of ‘early takeover’ of technical ownership are a few of the emerging best practices.. Critical to the success of these initiatives is the recognition that Automation solution providers are here for the long-term. What seems to be weak links in project execution are poor implementation standards, inadequate training and equipment incompatibility across different buying arms.

Why do we want to present and explore the big picture?

*“One of the most pressing needs is to find a way to determine the real truth out of the various data capturing devices that get connected across the operation. We want one truth to emerge fast that can be acted upon instantaneously”! And we expect intelligent automation to deliver that !!*

The Automation Industry Association, AIA, is India’s Apex nodal body, comprising over 50 member companies with cross-industry, cross-continent experience. The Thought Leadership Forum for Automotive is a long-term initiative aimed at uncovering the potential risks and opportunities.

Participating companies are invited to bring in their core teams to the event and pre-register on the first 3 days of the Automotive Engineering Show..