

TECHNICAL PROBLEM SOLUTIONS LLC NEWSLETTER

APRIL 2012



As the economy slowly begins to emerge from the fourth year of the 2008 recession, and businesses begin to reclaim lost sales and revenue, a couple of things have occurred. The businesses that survived this economic downturn have come back leaner, and in many cases financially stronger. Second, there is little appetite by the survivors for carrying excessive manpower. And finally, customers have a heightened intolerance for receiving nonconforming product. Now, these are all good things, but they do present some other problems. When the customer's orders begin to increase, or the new product programs are reinstated and kicked off, many times the human

resources required to support these activities no longer exist. So companies are left with the decision to add the resources, or buy contract services to support these activities. Either option can work, depending on a company's strategic objectives. However, recently several companies have contracted Technical Problem Solutions to address the nonconforming product issue mentioned earlier. Why? One, we have the expertise and track record to resolve these types of issues. Two, it allows the customer to avoid adding permanent headcount. And three, it's faster. We can assemble and deploy resources within a few days.

The process we use to address this issue is the "Supplier Improvement Process", or SIP. SIP is a three phased methodology that focuses on the identification and elimination of the root causes of nonconformance. The methodology is simple, but effective:

Our Approach:

- Identify the worst of the worst / biggest opportunities.
- Engage top supplier leadership.
- Establish firewall, standards, and measurement system.
- Audit system (quality, safety, productivity).
- Make problems visible.

- Engage the workforce.
- Drive problems back to point of operation.
- Train the workforce (Quality System Basics, Basic SPC, Problem Solving, and Layered Auditing).
- Solve Problems / Recognize Results / Continuously Improve.

This approach has been successfully utilized with suppliers in North America and Europe with double digit quality improvement. Our methodology is readily understood and implemented by all manufacturers regardless of nationality. TPS can help your company achieve similar results.







Electric Vehicles.....We're In!

Changing economic cycles, highly customized products, and leaner product inventories make today's manufacturing more variable and volatile than ever before. Within this fast paced, multifaceted environment, major disruptions can occur without a moment's notice. Technical Problem Solution's industry proven tactical approach to solving problems enables us to tackle complex issues in shorter timeframes than our competition.....even when the problems are related to electric vehicles.

Technical Problem Solutions strong technical capabilities have been deployed to support two of the latest innovations in the automobile industry....the award winning "Chevrolet Volt" and the recently introduced "Coda." Both of these vehicles are designed to reduce global dependence on oil while supporting green technology. These are two of the most technically advanced vehicles in the world.

Our team members specialize in helping companies make step changes across their companies through the design and implementation of customized solutions. We can also guide the transformation of large scale processes and continuous improvement of core operations.

We use our industry experience to leverage our core consulting delivery capabilities to provide services that include issue-based approaches, diagnostics, solution sets, tools and methods. Moreover, we continuously update our capabilities through our own field applications. These capabilities span the spectrum of:

- Supply Chain Management
- Supplier Improvement
- Performance Management / Metrics
- Statistical Engineering
- Operational Management
- Product Lifecycle Management
- Lean Manufacturing
- Divestiture Management

TPS provides an integrated set of tools with which we can develop solutions that deliver real results and real value. As our satisfied customers know, value comes not just from great ideas, but from effective execution and management of change.....change that is discernible long after we leave.

We are proud to be an integral part of the movement towards alternative energy sources for vehicles.



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TPS joins Governor Snyder and the Michigan Delegation on a <u>Trade Mission in Turin, Italy</u>

MARCH 19. 2012

TPS President Paul Rosko and Associate Pietro Fuciarelli were invited guests by Michigan Governor Rick Snyder's Economic Development Team to attend a reception for Italian companies. The reception was held at the historic Palazzo Birago di Borgaro in Turin, Italy and was attended by Italian dignitaries, including members from Fiat S.p.A., Chrysler Motors LLC, General Motors Company, and various financial institutions, automotive suppliers, and politicians.

The purpose of the reception was for the Governor and his team to pitch Michigan as a good place to do business in and a great place to relocate their North American operations. Governor Snyder's "PURE MICHIGAN" theme, noted that even though the past 4 years have been very trying in Michigan, he sees a rebirth of the automotive sector and a very prosperous future for the industry. Mr. Snyder noted that Detroit, with many new technology companies who have relocated in the area, and more on the way, will no doubt be realized again as the automotive capital of the world. Snyder noted, "Michigan can no longer think inside the box and must reinvent itself in order to again become a state of prosperity." The reinvention is now in its second year according to the Governor, and now is a great time and opportunity for Italian companies to locate in Michigan. The Governor also noted that Michigan has many wonderful vacation and recreational areas to enjoy.

TPS also attended a Medical Main Street seminar held by Brooks Patterson's (Oakland County Executive) Economic Development Team. The seminar was held in Bologna, Italy and attended by medical equipment companies who are interested in locating in the Oakland County Medical Main Street. This initiative is a one of a kind alliance that brings together world class hospitals, universities, medical device companies and some of the county's top medical professionals creating a global center of innovation in the life science industry.

TPS met with many of these companies in discussions on the services that TPS provides in assisting these companies in locating to Michigan. These services include Operations Management, Launch Support, Program Management, Supply Risk Management, Advanced Planning and Development, Performance Assessment and Improvement, Statistical Engineering, Lean Manufacturing, and many more.



Above: Governor Rick Snyder (far left) meets with Fiat and Chrysler executives in Turin, Italy.

Below: Sergio Marchionne, Chairman and CEO Chrysler Group LLC (center) meets with Michigan officials at Fiat Headquarters in Lingotto, Italy during the trade mission.



In Our Opinion....

MARCH 2012

There has long been empirical evidence of a positive link between technological innovation and economic performance. Companies that have historically led their industries from a technological perspective have been able to markedly increase their profit opportunities over their competition without necessarily having to be very good at execution. Conversely, firms that supply product based on mature technologies are under tremendous pressure to execute and to hold the line on costs. Leaders from these

companies will talk about standardized work, the elimination of waste, zero incidents, and warranty reduction;

however, what they are really trying to do is to understand the variation they see in their products and assemblies and then work to reduce it. The competitiveness of the mature marketplace demands low cost high quality goods.

Given the current price of oil, many new companies today are focusing their entrepreneurial efforts toward new energy saving devices and alternative energy systems. Some of these firms will be profit takers if they can make a robust technological breakthrough in their specific area of expertise. Some other firms will lose.

I believe the winners will be the companies that will have the ability and the discipline to be able to focus on both of these seemingly conflicting ends. They will be innovators in design, they will have a disciplined test and fix loop along with an aggressive ongoing statistically based variation reduction program.

- Paul A. Rosko President & Managing Director



