

Meeting the Automotive Challenge of Creating Sustainability in a Complex Supply Chain Environment

By Liz Garnand, Principal, Newport Consulting Group (December, 2011)

If there was to be a worldwide awards event, like the Oscar's or the Nobel Prizes, where the event recognizes and awards the world's best for meeting the highest challenges of "complexity," the whole Automotive Industry may be overdue to receive their gold trophy. From the global economic uncertainties in an already low profit industry, to new emission-level targets, to the huge shift in the degree of electronics in each car – these are challenges that may be apparent and noticed by the public. What may be less obvious and apparent are the challenges Suppliers and OEMs face in tracking their models, where each car model is now segmented and fragmented into endless combinations and niches, and each car can contain 10,000's of parts. In addition, OEMs and Suppliers need to comply with the different and changing mandates for selling cars within each country, where mandates could include; tariffs, what components must be manufactured locally, or regulations for specific product materials or environmental concerns.

Managing or participating in a supply chain that reaches across the world to produce a car made up of a multitude of parts and variations, and then sold across different market segments and countries is a daunting challenge. In order to stay competitive in this industry, it is critical that these companies be able to collect all the details, sort through these details and create comprehensive reports to make timely and accurate decisions. Choosing right technology solutions that can enable comprehensive and current information access is an important key decision. This article addresses how to identify and sort through the business requirements for specifically choosing a compliance and sustainability solution within this challenging environment.



Pressures to become a Sustainable or “Green” Manufacturer

New market pressures are creating the need to track product attributes beyond the conventional areas of concern. Managing a supplier specifically only based on time-of-delivery, quality-of-product, and regulations will no longer be enough, as many consumers and

governments are seeking to buy and support products that are “Sustainable.” Consumers have already shifted towards purchasing products that are better for the environment, are recyclable, or are manufactured by a company practicing social ethics. Certain areas of the world are ahead of this sustainable trend and those governments are creating product compliance regulations that support these values. Manufacturers should expect not only market sustainability pressures to increase, but also compliance regulations to increase as governments respond to the new values for “greener” products. The pressure to track new attributes in the Supply Chain associated with “Sustainability” values include EHS (Environment, Health & Safety) and Product Materials metrics have already surfaced, and these attributes will continue to expand across many areas of interest and concern.

Fulfillment of:

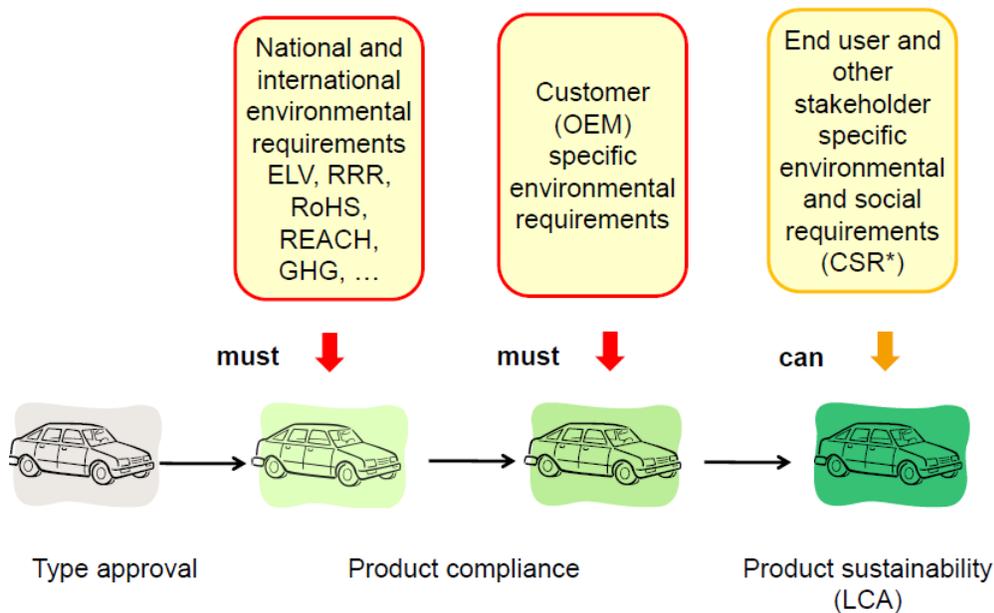


Figure 1: Fulfillment of regulations and guidelines for environmental product compliance is produced with varying degrees of capability. *Source: iPoint-systems, 2011*

Assessing Sustainability Abilities within an Ever-Changing Supply Chain

For OEMs and Tier-1 companies, choosing and managing the right suppliers are critical factors to profitability and gaining a competitive edge. Suppliers are sought across the globe, whether to help lower production costs or to partner with those suppliers that offer innovative components. Once initial suppliers are established, the OEM or higher-tiered manufacturer must respond rapidly at any time to supplier disruptions. Natural disasters - like the recent flooding in Thailand - or more wide-spread disasters - such as in Japan - or country unrest,

workforce issues, tariff, currency exchange fluctuations, regulatory changes and the like are all disruptions that can cause another supplier to be sought after in mid-course of production. The need to quickly adapt and change suppliers to meet product delivery demands is not uncommon, and breakdowns in supply chain must be immediately resolved.

When choosing a new supplier, criteria such as cost, ability to meet specifications, speed-to-delivery are all necessary. But choosing a supplier based on their ability to meet sustainability criteria will become more and more critical for providing a competitive edge to those consumers demanding “greener” products, or for just being in compliance. For example, a new supplier may meet all the engineering specifications, meet cost requirements, and be able to deliver on time. However, if that supplier misses to report on a material that negatively impacts the vehicle’s numbers for environmental compliance (e.g. exceeding 0.1% weight of a lead compound for a metal alloy), then that whole production run may not longer be in compliance for specific country destination. Having access to the right details for quick decisions is important, and so is choosing a technology provider that can provide those details over time, coupled with their proven track record in tracking and understanding sustainability issues and trends.

Balancing the “Cost” of a Software Solution

Larger suppliers and OEMs will find their challenges in implementing a sustainability solution centered around connecting disparate information systems for better integrated reporting. Smaller suppliers may simply seek a solution that requires little customization and internal maintenance due to lack of overhead resources. All companies will need to work with existing systems such as the “International Material Data System” (IMDS). Manual processes are to be avoided so that a company is not vulnerable to mistakes, manual email requests for information, and delays.



Big or small, companies within the automotive industry share common concerns with other industries - their need to balance how much money, effort and implementation time is spent in order to gain the desired functionality. When considering alternative solutions, common concerns include:

- *What are the pros and cons of adding another vendor to our environment? Connectivity issues?*
- *How will this provider impact us in maintenance over time? How can we avoid projects and high maintenance costs for future software provider releases?*
- *How much can we leverage and use our existing systems?*
- *We need all these features but don't want to have a huge investment. Risks are there if the costs are too high and the implementation too long. Risks are there if the features are not there. What to choose??*

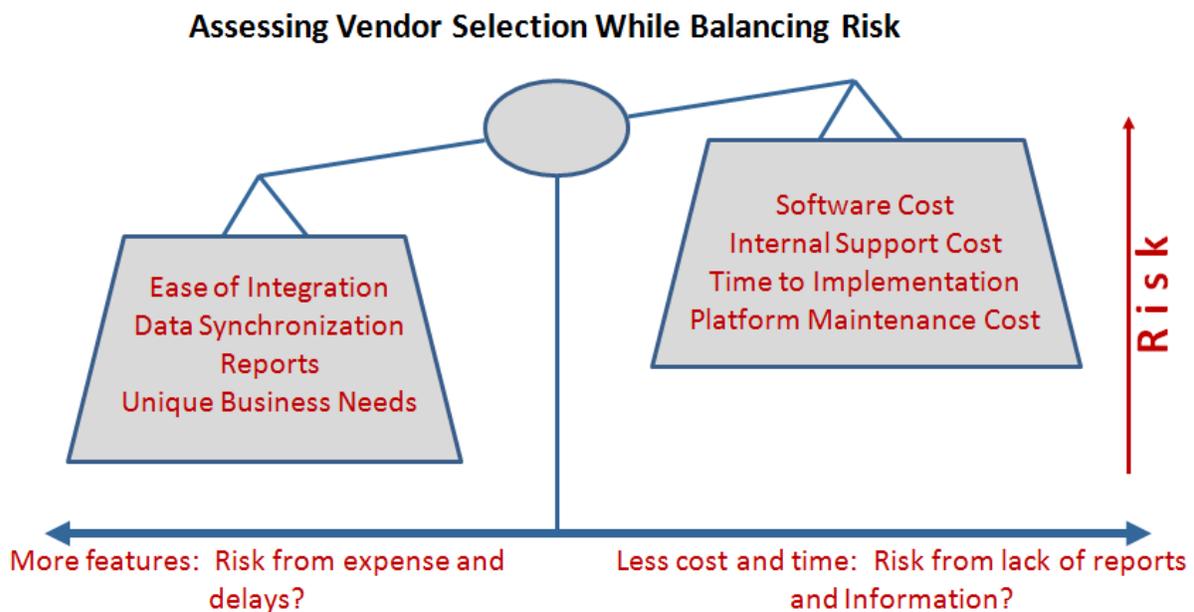


Figure 2: Assessing the risk of features versus time and cost of new inter-departmental software solutions.

Emerging Technology Providers Even out the Scales: Rich Features for Less Time and Money

Trends in technology innovation have made it so that more “features” does not have to mean more “cost and time to implementation”. More smaller software providers have emerged across various industries as strong competitive contenders in providing highly efficient solutions that need little customization, are flexible, modular, rich in features and integrate well into existing complex systems. The entrance of these new providers is due in part to the connectivity improvements that have been made to the many common established database technologies. These types of providers can be specialized experts in connecting information across disparate databases. The ability for technology provider to work within existing data systems so that (ideally) bilateral flow and synchronization of data can happen should be at the

heart of a new sustainability vendor-selection process. How to present and report on information using disparate systems continues to be both an art and science.

When looking to find a vendor who provides compliance and sustainability management tracking, workflow and reporting, the following are some areas to investigate:

- **Connectivity & Integration Capabilities:** *If the vendor is experienced and competent enough, on-going and connectivity can be automated for near-real time information reporting. Test out their ability to integrate into existing and evolving enterprise systems.*
- **Sustainability Expertise and Services:** *Their degree of expertise in global compliance and sustainability issues coupled with any services they provide is important. Having a vendor who is advising and planning for trends in sustainability and compliance ensures a company will be prepared for the next changes. Knowing that the solution can morph and change with the industry with both new data inputs and reporting capabilities is also critical.*
- **Proactive Tracking & Reporting on Details:** *A solution that anticipates and automatically reports on missing details will minimize manual inputs and errors.*
- **Minimum Ongoing Maintenance:** *Identifying the cost and time impact on future maintenance and upkeep should be understood.*
- **User Ease-of-Use:** *This can be said for any software solution out there. If it's understood and easy-to-use, it will get used and then replace and improve upon current business workflows.*

iPoint-systems Solution Portfolio

iPoint-systems is a solution provider that has established itself as a leader in environmental compliance and sustainability in the Automotive Industry. It offers a compelling expertise in connecting with various information systems, meets the challenges of complex organizational environment, and yet offers very specific and specialized subject-matter-expertise with rich features and company services. Data integration and details are there, along with a modular architecture that allows for a more “off-the-shelf” solution to be implemented without missing out on the features needed to track, maintain, and manage compliance and sustainability concerns within the company and among the supply chain.

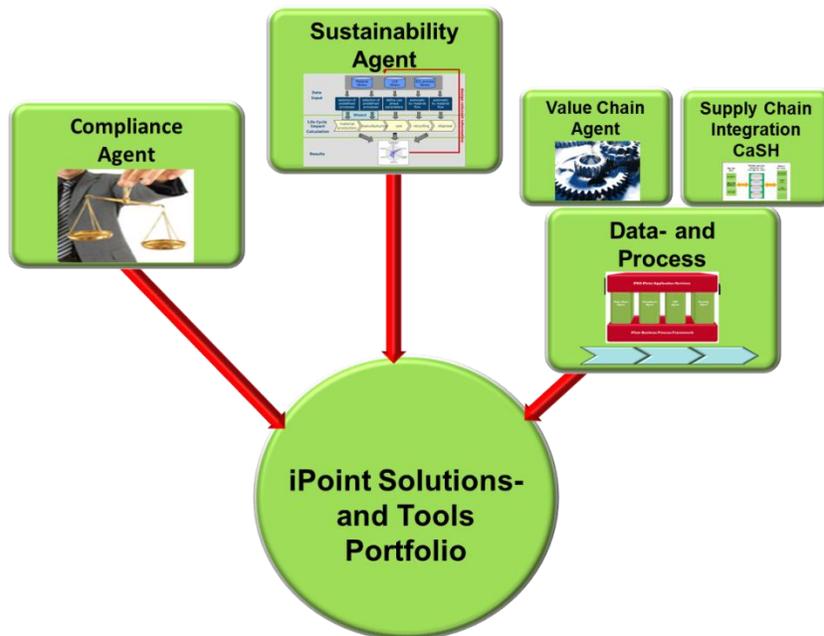


Figure 3: iPoint Solutions Portfolio at a glance. Source: iPoint-systems, 2011

iPoint tracks product content restrictions for various compliance regulations such as ELV, RoHS, REACH/CLP, TSCA, California Prop 65 and tracks other concerns such as EHS process checks and end-of-life recycling requirements. Serving 11 OEMs and many suppliers worldwide, iPoint is well positioned to meet the current and future compliance and sustainability concerns in the automotive industry as well as other industries such as electronics and aerospace. For more information, visit <http://www.ipoint-systems.com>.



Liz Garnand is a principal with Newport Consulting Group and a member of the strategy and operations practice with a focus on marketing and business growth. Ms. Garnand has over 20 years of combined experience in marketing, product, and sales management with an emphasis in managing B2B technology products from concept to market launch. Ms. Garnand also contributes to Newport Consulting Group's social media presence and marketing point of view.

Liz earned her Honors Business Administration degree at the Richard Ivey School of Business at Western Ontario University. She makes her home in Portland, Oregon. You may contact her via email at lgarnand@newportconsgroup.com or follow her on Twitter (LizGarnand).