The Multitalented Car Maker Adopts New Tools

The growing sophistication and complexity of vehicles require manufacturers to adopt a perspective that goes beyond car building.

Automakers that have chosen to aggressively adopt new technologies and processes are poised to enter a new era of innovation, efficiency and profitability. That undoubtedly means that manufacturers will face new challenges and opportunities in auto manufacturing.
Is the Dashboard Up for Grabs?

Something as essential to the operation of a vehicle as the dashboard could never be replaced by technology from industries outside of automobile manufacturing. Or could it? Considering the growing impact of smartphones and tablets, it isn’t too hard to envision the tablet as a plug-in dashboard.

As mobile devices evolve, there’s little doubt they will play a larger and more integral role in vehicle operation.

That may offer manufacturers the option of radically rethinking the systems and features offered inside the vehicle, including the entertainment system or even the instrument panel.

And when should we expect it? The future is now, says Dirk Slootz, an automotive expert with CSC Germany. Mobile devices and internet-based systems are already assuming multiple tasks inside the car, including entertainment, communication and navigation.

“In the Mercedes-Benz A-class, your iPhone is directing the video to a central screen. You see your own environment, your own apps, because they’re on your phone,” Slootz says.

Manufacturers face continuing pressure to drive down the time required to design a vehicle, bringing it to the showroom in less time and at a lower cost. Several trends are proving to be both a help and a hindrance to that goal.

1. Consumer preferences are playing a larger role than ever in determining the features that will be offered in a vehicle, a trend that is in direct conflict with the demand for faster design turnaround. What’s more, consumer preferences change quickly. This means manufacturers must have the ability to rapidly sense new trends, account for them in design, and push them through in a finished product.

2. As vehicles grow more sophisticated, manufacturers are finding it difficult to be experts in every field that touches the car making process. Consider, for example, all the standards manufacturers must follow: vehicle standards, information technology standards, manufacturing standards, safety mandates, cellular standards, corporate systems and now, of course, consumer technology standards.

3. Those standards, which continue to evolve, affect every step of the process from design to procurement, manufacturing to marketing. Understanding how those standards work together today, and tomorrow, is a tall order for anyone. And that means successful automakers will adopt a multi-industry perspective.

Information technology continues to exert a growing influence on the process. The tools for design and simulation have improved tremendously over the past few years. From the drawing board to manufacturing, everything about a car can now be simulated before it’s built, from its performance to how it will be produced. That not only reduces time to market, it reduces the expense and the risk of bringing new products to market.

4. The impact of big data is just beginning to be incorporated into the process, a development that is sure to spawn another round of innovation in all aspects of vehicle manufacturing. The insights manufacturers can glean from consumer sentiment, vehicle performance and a growing number of other sources will help them reduce the risk of new vehicle design.

CSC helps automakers meet these challenges with a multi-industry perspective and the vision they need to be successful. CSC helps automakers adopt the innovations, technologies and best practices developed in our work with clients in other industries. As a system integrator, CSC knows how to reduce complexity. And we understand the impact and the opportunity presented by emerging technology trends such as big data.

While CSC won’t tell automakers how to make cars, we do understand the impact of all these technologies and standards. That allows automakers to focus on making cars that are reliable, safer, efficient and fun to drive. And more profitable, too.