The auto industry is undergoing the largest change in its history: in-vehicle connectivity, electrification, autonomous driving, and the shared economy are all redefining what a vehicle can and should be.

The transition from combustion engine to electric vehicles (EVs) alone would have been enough to rock the industry, but innovation through software has become a game changer.

In the midst of this unprecedented shift within the mobility industry, automakers need to accelerate speed to market and become much more responsive to customers’ requirements—especially with regard to digital features and services.

Companies that continue to work in the traditional way won’t achieve the step change needed to compete in this new environment. A handful of automakers are already well on their way toward mastering new, agile ways of working—and the results speak for themselves.

**Why Agile?**

At its core, agile comprises a set of principles that guide an entire way of working; it does not constitute a dogmatic prescription of specific structures and rituals. As the automotive industry becomes increasingly driven by innovation and software, agile delivers many advantages, including the following:

- **Better Products.** With consumer expectations at an all-time high, automakers must understand what guides buyers’ purchasing decisions and respond rapidly. Agile teams continuously engage with customers and recognize changing market forces as they emerge.

- **Reduced Risk.** With so much innovation happening in vehicle design, automakers can’t afford to get bogged down with late-stage changes and rework. Cross-functional, dedicated teams have full visibility into products and processes to minimize miscommunication and delays.
• **Accelerated Speed to Market.** Automakers need to find ways to keep up the freshness of their products. Traditional, hardware-driven product cycles must be managed in conjunction with software-driven innovation so that new functions and services can be updated over any given vehicle’s lifetime.

• **Cost Savings.** The shift toward EVs and autonomous driving requires a massive investment for automakers—and reducing costs is a priority. Agile ways of working allow teams to increase efficiency, boost productivity, and do more with less.

In short, agile offers a secure foundation upon which automakers can build the company of the future.

### How Agile Is Solving Today’s Biggest Challenges for Automakers

Here are just a few ways that agile is helping companies gain a competitive advantage within the auto industry.

**Deliver like a software company.** The auto industry is a proud one—and rightly so. It has mastered functional excellence to get the highest-quality products at optimal costs in reasonably short periods of time. But OEMs are now entering situations of great uncertainty that require them to move beyond solving well-defined problems in functional siloes. The technology-driven revolution in mobility is changing the rules—and automakers need to be much more nimble, customer focused, and innovative. In short, they must learn to behave more like a software company.

One large global OEM has made agile a key pillar of its strategy with a large-scale shift to agile ways of working. In the first phase of its agile transformation, the company launched three pilots at the corporate level to dramatically improve the speed of decision making regarding certain processes. The pilots focused on:

- Optimizing the customer journey from the point of purchase to after-sales maintenance
- Mastering data-driven marketing and reducing dependence on external providers
- Resolving customer issues faster than ever before

With these pilots, online tools were developed twice as fast as they were before, digital marketing spending was reduced by 15%, and the time required to resolve customer issues was cut in half.

In the second phase, the company restructured the overall organization to facilitate agility. Teams were organized into tribes (with a brand focus) and squads (with a product focus), and decision making was much more collaborative. For example, instead of waiting to create campaigns for products that were already defined, the marketing team got involved early on, in the development process. The agile transformation started in two functions at the corporate level and is now expanding to reach more than 10,000 people at the enterprise level.

**Satisfy customers through continuous innovation.** Consumers increasingly view their vehicles as smartphones on wheels rather than as utilitarian modes of transportation—and expectations for freshness have skyrocketed. Customers want more frequent product releases, more advanced autonomous features, and monthly (or even weekly) real-time, over-the-air software updates. With customers anticipating new functionality on a continuous basis, automakers must reorganize to meet this demand.

To get products to market faster than ever before, a global automaker in the US reorganized its product development unit into cross-functional, agile teams dedicated to individual products. The teams live and breathe their products and gain a deep familiarity with customers, focusing on all three phases of any given product’s life cycle: evolving next-generation vehicles, con-
figuring product features for optimum value, and delivering maximum profitability for in-market vehicles. By reorganizing into product-focused, agile teams, the company accelerated development cycles by 40% and improved engineering and capital efficiency by 25%.

Cut costs—in just one month. Shared autonomous EVs are poised to radically change mobility in the US. It is estimated that, by 2030, fleets of these EVs will account for as much as 25% of all passenger miles traveled by car in the US. As a result, automakers’ production volumes may come down by a significant amount. Such a dramatic drop in volume is a massive threat in and of itself, but the problem is compounded by the fact that automakers are simultaneously laying out billions of dollars to compete in this new world. It goes without saying that companies are under enormous pressure to cut costs—quickly.

A global automaker in the EU used agile to generate significant savings in a very short period of time: approximately one month. In the past, the company had set goals to optimize product costs, but it became apparent that despite the generation of many innovative ideas, most were getting stalled during implementation. To overcome this hurdle, the company reorganized into cross-functional teams—bringing together experts in marketing, engineering, purchasing, and vehicle programs—to identify the best opportunities with high value in the short term. The teams conducted a data-driven analysis to get a 360-degree perspective on product costs, including consumer-facing elements as well as technical and commercial issues. Armed with this knowledge, they launched focused sprints to pursue new opportunities—and teams were given the freedom to work toward creative solutions and iterate quickly. In a short period of time, the teams received approval for a substantial number of ideas (15 to 20), all of which were implemented in vehicles.

These new ways of working are transforming not only the automotive sector but also other industrial-goods sectors. Agile has the potential to streamline the development and production of a vast array of engineered products, including consumer faucets, oil well pads, and tires.

How to Get Started
Gaining momentum with agile ways of working requires some upfront planning. To maximize results, companies need to establish clear objectives and select a strategic approach that best matches their particular business environment:

- **Set the ambition.** The first step in any agile transformation is to evaluate the company’s current maturity level, identify specific business challenges, and analyze the root causes of significant inefficiencies. With this knowledge in hand, senior leaders can effectively align on the objectives that can be achieved by becoming more agile.

- **Secure buy-in from top management.** Unwavering commitment by senior executives is essential. In an agile transformation, changes in processes, people, and ways of working are occurring all at once, and some resistance will inevitably arise. Senior leaders play a top-down role in defining the new organizational structure, but they also need to enable people and catalyze change from the bottom up.

- **Big bang or wave by wave.** It’s important to decide at the outset how the transformation will be managed. With the “big bang” approach, leaders redesign the organizational structure and the operating model up front and pursue an agile transformation simultaneously. This approach is best for mature, agile organizations with a reasonably high risk tolerance. For companies with less agile experience and less appetite for risk, the pilot-led—or wave by wave—approach is preferable because quick wins can be achieved within individual units, thus building momentum for a larger agile transformation.
While some automakers have started to use agile in discrete project teams, programs, or individual units, only a very few have started to deploy agile at scale. As companies move from implementing agile on individual projects to portfolios and, ultimately, to entire businesses, more and more core processes will need to be adapted—and that’s a significant operational challenge. Given the numerous benefits of agile, reluctant OEMs would be well advised to act quickly—because the trend toward software-driven innovation will only intensify in the coming years.

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