DRIVING AHEAD:
New Growth, Agility and Connectivity through the Intelligent Automotive Enterprise
We’re seeing unprecedented transformation in the automotive industry. Powering these developments forward is the shift toward driverless, electric vehicles and a whole new digitalized driving experience. The past 100 years were all about fine-tuning vehicle manufacturing to make it more efficient for mass scale. From now on, there’s a more existential force for change: harnessing digital to redefine the role the vehicle plays in our lives.

By 2025, all new cars will be connected to the internet. And the whole concept of car ownership is changing forever. The direction of travel is clear: Car2Go already has over 2 million active users and disruptive entrants are all investing heavily in self-driving technologies. For automakers, there’s a huge opportunity here. Today, sale price and maintenance combined generates a typical return on an average vehicle of USD $30,000. Selling rides in driverless vehicles could make companies hundreds of thousands of dollars per car.

Connected cars generate vast quantities of data. And increasingly we’ll see automakers harnessing in-vehicle sensor data to guide new product design.

The prize? Enabling the flexibility to make real-time adjustments to production lines, providing new features that drivers want and use, and saving resources devoted to developing new features that prove to be unattractive.

However, the industry is hampered by fragmented processes and information gaps between manufacturers and dealers. These call for new dealer management systems that can connect with customers more effectively. Poor supply chain visibility and a lack of customer insights also limit the ability for automakers to meet consumer demands and provide the right interactions, experiences and swift delivery of new vehicles.

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Reinventing the industry: The time is now

The catch? Automakers can only capture benefits like these and ensure ongoing relevance if they pivot to the new technologies that make all of this possible. The imperatives for automakers in this new environment are to reinvent themselves along three dimensions to thrive in the New.

1. BE AERODYNAMIC
Streamline the current business to unlock value and free up capacity. To do this, they must unleash efficiencies in core functions like manufacturing and R&D through the Industrial Internet of Things (IIoT) technologies, use robotic process automation (RPA) and artificial intelligence (AI) to streamline support functions, and accelerate speed to market with new IT. It’s only by driving new efficiencies in their core business that OEMs (and OESs) can truly compete as agile enterprises.

2. BE ENGAGING
Enable top-line growth and deliver to liquid customer expectations with direct and personal services and solutions. This means focusing on living marketing with seamless, omnichannel and personal customer relationship capabilities, reinventing the customer experience through extended reality and implementing zero-based retail in future distribution models.

3. CHANGE LANES/REINVENT THE CAR
Engineer and build the car of the future, while morphing business models into selling outcomes to drivers and passengers. The priorities here are developing autonomous, connected and electric car fleets, enabling living services through mobility, monetizing data streams from vehicles, and tapping into the power of the ecosystem to support ride-sharing.

Intelligent Mobility Services – how an intelligent platform can maximize value:

The whole concept of mobility is in flux. Access is overtaking ownership as the default consumer option and new automotive subscription-based models are replacing traditional ownership. The car-sharing market has been growing rapidly for over a decade and it’s predicted that mobility on-demand miles will outpace the number of miles covered by owner-drivers in a near future. Providing mobility services on-demand will require an intelligent platform. This will harness data to connect and deliver subscription-based customer experiences right across the lifecycle, from long-term leasing to flexible pay per use, mobility pool management and predictive maintenance.
The bottom line? With the majority of the biggest changes in today’s automotive marketplace being driven by developments in the Autonomous, Connected, Electrified and Shared sector, OEMs and suppliers know that, from now on, their profitability hinges on innovation.

As a result, they are evolving their strategies to enable vital connected cross-industry capabilities and intelligence that will differentiate them, while ensuring that increasingly commoditized production capabilities are as efficient as possible.

The winners in this world will be automakers that successfully switch their operations to the New, transform their core business, and reallocate resources, fast. So how do automakers move toward this future today? New capabilities are urgently needed—many of them powered by new technologies—to create these intelligent, agile and efficient automotive operations and experiences.

### Bringing it all together: An intelligent platform for automotive operations in the New

As we progress into a post-modern enterprise resource planning (ERP) world, we’re seeing more verticalized capabilities that are designed to enable intelligent automotive operations (see Figure 1). But to realize their enormous potential for innovative, lean business capabilities, companies need to move away from old monolithic ERPs and join an integrated platform-based landscape, with vertical functionalities and a data-centric approach.

![Figure 1: Move to a platform based, data-centric architecture](image)

ERP strategies are fundamentally moving away from monolithic single vendor solutions to a platform based, data-centric architecture supporting innovative and lean business capabilities for automotive
An intelligent platform, powered by technologies provided by companies like SAP, is essential to support the new capabilities that will drive automotive companies’ competitive edge from now on. It’s also vital for effective collaboration throughout the automotive ecosystem—including with end-buyers, who are increasingly being included in the design-to-market cycle.

To be able to leverage intelligence in everything they do, automotive companies must combine all the data at their disposal, through an integrated and digital platform, where new technologies can be applied to it, in real-time. Unlike today, where back-office technology limitations mean that processes lag actions, it will become possible to pick and choose where to apply intelligence, at the moment of need, to reshape execution, teams and business models.

As the automotive market undergoes such radical change—from driverless cars and new car-sharing models to connected in-vehicle technologies—companies realize they can’t create and operate a business for the 21st century with an enterprise platform that’s likely to have been custom-built for the pre-internet era.

But evolving to a new intelligent capability requires major transformation, requiring organizations to invest wisely in new ways to operate both internally, and externally with ecosystem partners.

So how should companies drive forward? We believe that most successful transformations follow a common path. First, they need to have a clear vision that shows the way ahead from thinking to doing (and measuring what they achieve along the way). As they move forward, the success of their holistic transformation hinges on following a roadmap with predefined targets and outcomes, connecting strategy, business objectives, operating model, processes and workforce to the enabling platform technology. Of course, digital prowess is a critical component of success. But more is needed. Specifically, deep industry and functional expertise are essential to design and guide the transformation. By bringing together all those elements, automotive companies can develop a robust case to support their journey, including strategic and operational benefits as well as the positive financial outcomes (see Figure 2).

Figure 2: Business case development: approach to guide digital transformation enabled by an intelligent platform

Source: Accenture
Intelligent aftersales: A new engine for value

Aftersales is a particularly high potential area for automakers to realize efficiencies. It’s a good example of the value that an intelligent platform brings. Making aftersales lean and efficient is fundamental to maximizing value through higher sales and improved margins. What’s more, enhancing customer satisfaction and loyalty in this way will significantly boost brand reputation.

Priority aftersales areas for automotive are spare-parts management and warranty management.

The former addresses the challenge of optimizing supply-chain and logistics networks, improving customer service and reducing OEM costs. This requires multi-echelon models that ensure a balance between maintaining lean stock levels and having the right parts for customers at the right time.

And to enable all this requires ‘sense and respond’ supply chain capabilities, real-time inventory analytics and real-time track and trace.

The same holds true for warranties, which are a substantial cost for OEMs. Using data flowing from in-car sensors, manufacturers will be able to redefine how warranties are managed. By applying advanced analytics to this data, it will be possible to identify patterns in driving behavior that enables manufacturers to shift from a product focus to much more granular customer segmentation.

This detailed view supports real flexibility. Automakers could, for example, offer drivers the same warranty package for a fixed period of time (e.g. the first three years), before switching packages to a much more individualized model based on each driver’s actual usage.
Into the digital fast lane

The convergence of four megatrends is revolutionizing today’s automotive industry: electrification, autonomous driving, connectivity and the sharing economy/mobility. Automotive manufacturers that set the pace will continue accelerating to digital, developing connected services, and putting the brakes on costs. What’s the key requirement to realize all this? An intelligent platform that can securely and rapidly drive automotive companies into the fast lane.
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Footnotes


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