Accelerate Digital Transformation with

Intelligent Automation

Four Areas to Ignite Innovation for Automotive Leaders
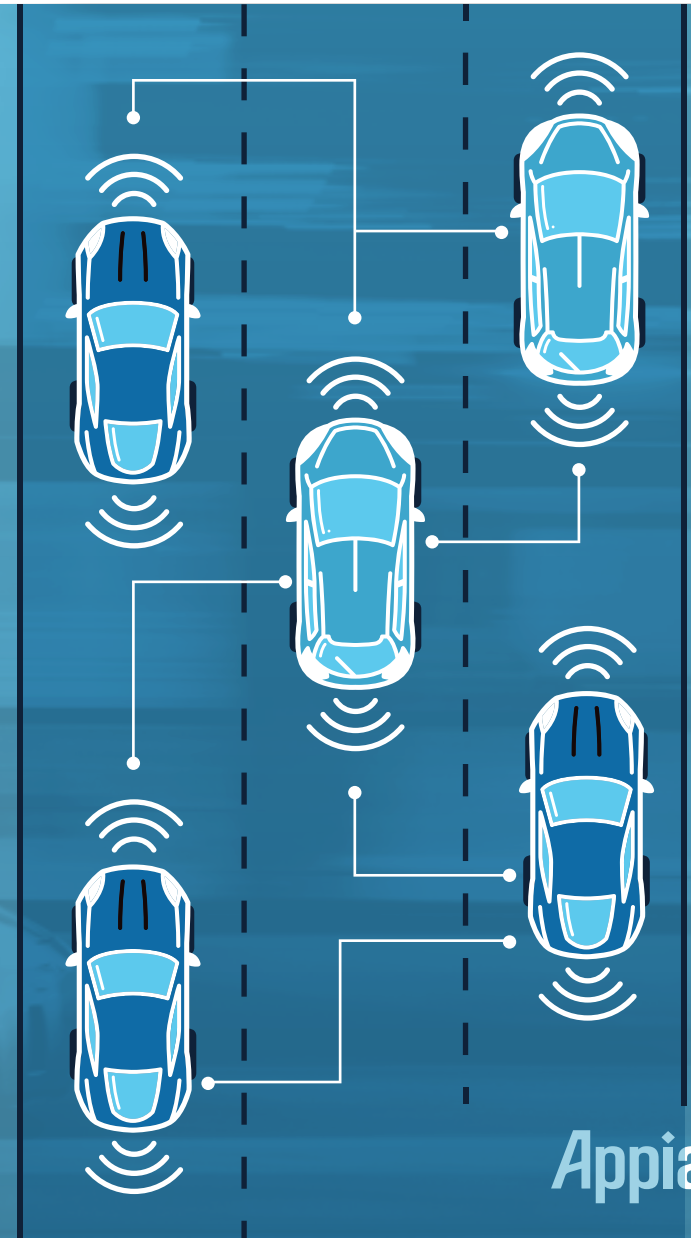
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Igniting Transformation

Gartner forecasts that by 2020, there will be more than 250 million connected vehicles on the road, roughly one in five vehicles around the world.[1]

New technologies—and the opportunities connected vehicles present—are changing the way automotive industry players need to think about value chains, business processes, and data management. Furthermore, digital-savvy consumers have ever-expanding expectations of how they want to interact with their vehicles and preferred brands. This makes it increasingly important for automotive leaders to drive efficiencies, while identifying ways to:

· Increase the flow of actionable data throughout the business

· Improve communication with partners

· Deliver more personalized customer experiences

As automotive leaders determine how to approach digital transformation amid legacy systems, talent shortages, and ever changing customer demands, an **opportunity to accelerate innovation arises through intelligent automation.**

1. Gartner, Inc. Press Release, Newsroom, January 26, 2015

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In an era of constrained resources and heightened productivity expectations, leading automotive organizations are aggressively working towards achieving greater automation. This, in combination with providing cutting-edge customer experiences, is the basis of sustainable competitive advantage.

> *"The next couple of years will see intelligent automation emerge as one of the most significant drivers of enterprise digital transformation as enterprises move beyond routine process automation for operational efficiency to AI-powered automation, which will* **drive optimized decision making throughout the enterprise business ecosystem."**
>
> —Pushkaraksh Shanbhag, IDC, Intelligent Automation: The Key to Enterprise Digital Transformation, 2018

For organizations to realize greater value from emerging artificial intelligence and digital workforce technologies, leveraging an agile platform that combines enterprise data unification and dynamic process workflow is important for a full end-to-end intelligent automation solution.

Read on for insight into four key areas where intelligent automation is helping to transform the automotive industry and accelerate the pathway to productivity, cost savings, and profitability.

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1 Extend Enterprise Visibility

> *Digital transformation in the automotive industry is really a way of saying that the companies must **tie together the information** that is being produced by all of their expensive and long-lasting assets **and learn from it.***
>
> —Gartner, 2018 CIO Agenda: Automotive Industry Insights

From traditional data sources to connected vehicle data and the **Internet of Things (IoT),** the data lake in the automotive industry is exponentially growing. Intelligent automation starts with bringing relevant data together into an integrated view to extend enterprise visibility and take action.

By consolidating data and eliminating information silos, automakers can realize a **single, unified view** of the:

- Customer
- Automobile
- Part
- Dealer
- Supplier
- Process

There is no need to exhaust money, time, and resources to rip and replace legacy systems. With a modern interface that connects data across existing product, operations, and manufacturing systems, information can be communicated internally—and with partners and customers **across the digital supply chain.**

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Extend Enterprise Visibility

What is the best approach?

Leverage a digital platform that has an orchestration layer to bring together data across the organization, extending the reach of existing systems and building a unified view of business information.

With relevant data at their fingertips, employees are empowered to:

· Make informed decisions

· Adapt and refine processes

· Deliver personalized customer experiences

This lays the foundation to **further leverage and distribute connected vehicle data** among supply chains, subcomponent manufacturers, and partners.

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1 Extend Enterprise Visibility

The Business Results

Extending visibility across enterprise assets and flowing data to the right people allows for:

· Designing a complete picture of parts inventory for **on-time production**

· Creating master vehicle model specification records to **meet regulation requirements** and collaborate with suppliers

· Improving supply chain transparency to **eliminate process lags** and prioritize work

· Creating a master record of customer, component, dealer and coverage information to **improve recall and warranty servicing**

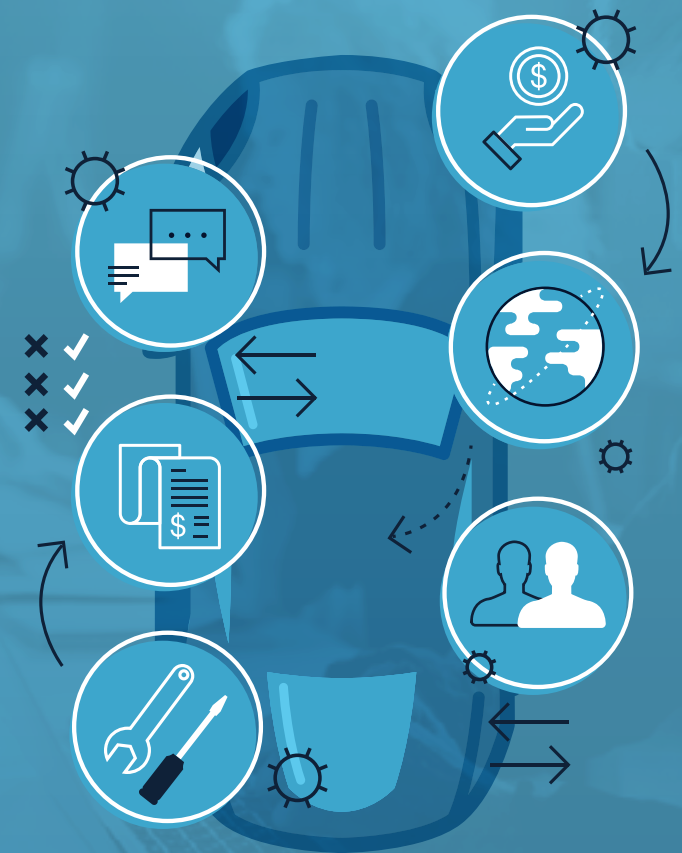· Identifying opportunities to **monetize connected vehicle data**

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[3] "Key Best Practices for Successful Implementation of Automation," R Ravi, Robotics Tomorrow, April 20, 2017

> *As organizations continue to accrue significant experience and familiarity with newer digital technologies, the need for **smart and adaptable process and work management becomes significant.***
>
> —Aragon Research, Predictions for Business Process Management, 2017

The automotive ecosystem is complex. From manufacturing of vehicles and their components to distribution, financing, maintenance, services and partners—there are endless opportunities to collaborate, integrate, and streamline. Process automation is where automakers can truly create differentiation for their business and **empower suppliers with digital collaboration.**

Too often organizations rely on outdated procedures, consisting of paper forms and other manual steps. If systems, processes, and people aren't talking effectively, there is lost productivity, lost opportunities—and **the door is open to risk.**

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What is the best approach?

Look to a modern Business Process Management (BPM) platform that provides the opportunity to extend beyond basic workflow to truly connect, and intelligently guide, process automation and collaboration across your ecosystem—regardless of existing technology today.

A rich business process engine allows automotive players to:

· Optimize internal processes

· Enhance end-to-end supply chain communications

· Better interact with networks of emerging technology partners

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Deliver Process Automation Across the Ecosystem

The Business Results

As business processes are coordinated, optimized, and automated, this allows for:

· Tracking product innovation concepts, engineering specifications, and collaboration to **speed design to production** and go to market cycles

· Improving communication across OEMs, Tier 1, and other suppliers, including on-boarding activities, design collaboration, parts management, and licensing

· Managing vehicle discounts and **dealer network incentives**

· **Accelerating the aftermarket supply chain** to get parts to customer as fast as possible, including quote, pricing, part availability, shipping, and communication

· Automating product lifecycle management activities across the supply chain

· **Streamlining warranty management** functions across eligibility, part diagnosis, claims processing, supplier recovery, incident notifications, remediation, and analysis

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Embed Artificial Intelligence

> *Through 2020, organizations using cognitive ergonomics and system design in new artificial intelligence projects will achieve **long-term success four times more often** than others.*
>
> —Gartner, Predicts 2017: Artificial Intelligence

According to IDC, embedding cognitive services into applications will provide U.S. enterprises alone with over $60 billion annual savings by 2020.[2]

It's no surprise that Artificial Intelligence (AI) is bringing major transformation to the automotive industry. From self-driving cars to ultimate connectivity, new vehicle innovations are making the world smarter and safer. To better understand customer needs and identify opportunities, automotive companies must **embrace AI and cognitive computing technology.**

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What is the best approach?

Operationalize Artificial Intelligence. Organizations that disseminate insights through business applications into the hands of people that can use it will realize greater value.

Leverage real-time insights about customer preferences and experiences embedded in day-to-day applications—including predictions, sentiment analysis, next-best-action and scoring—in order to:

- Deliver exceptional service
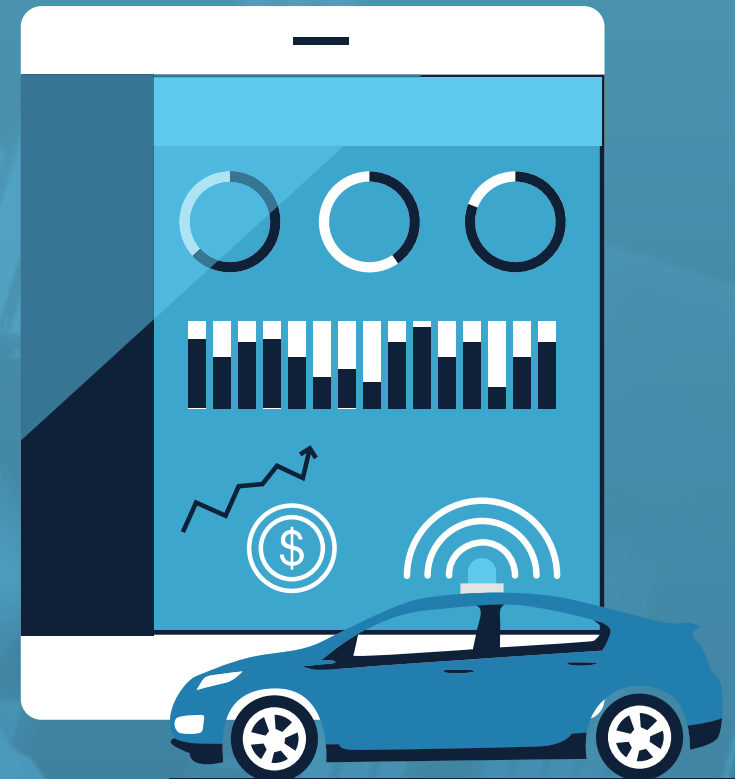- Develop the best products
- Avoid costly problems

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Embed Artificial Intelligence

The Business Results

AI is revolutionizing how organizations design applications and deliver customer value, paving the way for:

· **Detecting quality problems** and root causes before disruption

· Adjusting production schedules and lead times, ensuring the **right inventory levels**

· Offering targeted marketing, sales, and service messages

· Optimizing pricing through **demand and supply predictions**

· Delivering personalized auto purchase and finance recommendations

· **Improving maintenance scheduling** and fleet management

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(4) Leverage an Agile Digital Workforce

> *Robotic Process Automation (RPA) enables enterprises to **execute business processes five to ten times faster**, with an average of 37 percent fewer resources.*
>
> —ISG Automation Index™, 2017

In automotive manufacturing, a top business priority is improving product and service quality offered to customers, while mitigating the rising cost of labor. But, complex business processes and legacy business operations **slow organizations down.**

This is where software "bots" can help. With RPA, companies are able to automate high-volume, repetitive manual tasks, freeing employees to focus on **more meaningful and value add contributions.**

Benefits of adopting RPA include:

· **Decreased Costs:** Bots cost even less than offshore staff

· **Increased Throughput:** Bots are 2-3 times faster than humans and work around the clock

· **Improved Accuracy:** Bots offer better agility, precision and consistency than humans

· **Increased Compliance:** Bots allow for audit trails to manage compliance and risk

· **Improved Scalability:** Bots can be scaled up or down depending on business need, demands, and fluctuations

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What is the best approach?

Use RPA to automate the everyday routine user actions coupled with BPM to streamline overall business processes for end-to-end automation—and optimized efficiency and value.

This strategy allows automotive leaders to:

· Reduce repetitive tasks across systems

· Tackle the backlog of legacy integration needs

· Increase auditability for processes that require a higher level of compliance

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Leverage an Agile Digital Workforce

The Business Results

Embracing an agile digital workforce, organizations can achieve more in less time, allowing them to:

· **Integrate with legacy systems** that don't offer API connectivity

· Automate payments and communication to suppliers

· **Optimize material planning** by improving management of parts and inventory levels

· Automate orders and procurement processing tasks

· Streamline repetitive partner and **supplier on-boarding processes**
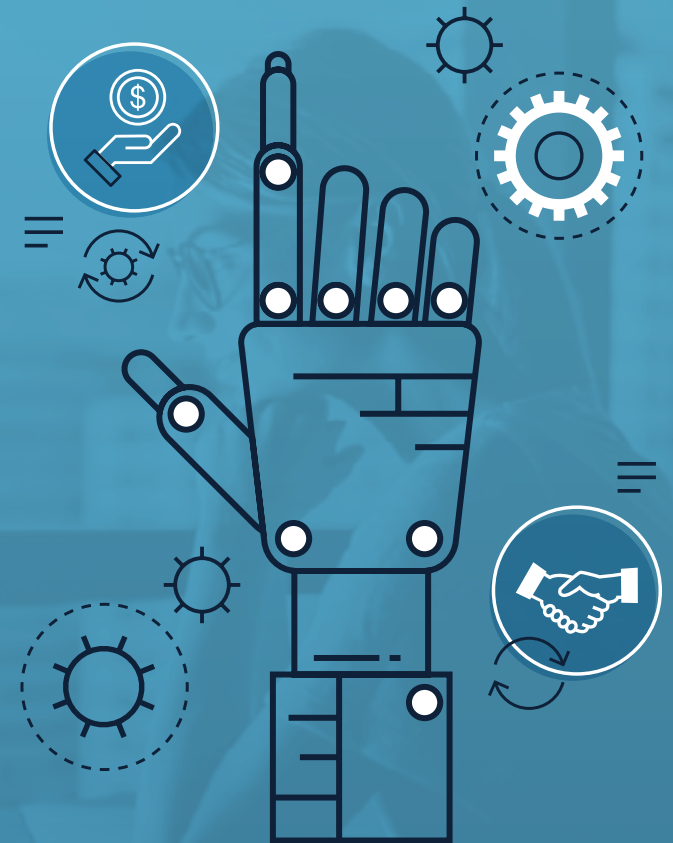
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Highway to Success

Forward thinking automobile manufacturers are **embracing intelligent automation as part of their digital strategy** to remain competitive, agile, and effective in delivering value to customers and partners.

By leveraging the confluence of these technologies and capabilities, there is an opportunity to drive efficiency, reduce costs, improve customer service, and advance partnerships.

By 2020, 60% of the top manufacturers will rely on digital platforms that enhance their investments in ecosystems and experiences – and support as much as 30% of their overall revenue.

—IDC FutureScape: Worldwide Manufacturing Predictions 2018

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Highway to Success

As you consider the best pathway to digital transformation for your organization, consider an application platform approach that supports robust intelligent automation. Here's what to look for in your technology partner:

· Offers a low-code application development approach for speed and agility

· Provides the ability to integrate data across existing systems

· Allows for business process, workflow, and collaboration management

· Offers the ability to embed AI, RPA, and future advanced technologies

· Provides trusted security, reliability, and governance on-premises, in the cloud, or with a hybrid environment.

To learn more about how Appian, The Digital Transformation Platform™, can deliver intelligent automation for your organization, visit **www.appian.com/industries/automotive-and-manufacturing.**

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About Appian

Appian provides a leading low-code software development platform that enables companies to rapidly develop powerful and unique applications. The applications created on Appian's platform help companies drive digital transformation and competitive differentiation.
*For more information, visit **www.appian.com.***