NTT DATA

How Jaguar Land Rover can achieve greater productivity and flexibility in its manufacturing and engineering operations

Contents

How JLR can accelerate its journey to data-driven, agile manufacturing and engineering

Jaguar Land Rover faces complex challenges as it drives ahead with its Reimagine Strategy. JLR will need to work in radically new ways to transform its manufacturing and engineering operations. It must harness its existing skills, innovation and experience, as well as work with partners who bring their own capabilities and embed them in the programme.

NTT DATA has already demonstrated its credentials working with JLR on several projects, including the Special Operations division. Our way of working is more agile and more collaborative than you have seen previously in many areas, delivering more features and value than ever before.

Yet we have much more to offer and can bring deep expertise and long involvement in helping you meet growing customer demand for higher product customisation that goes beyond the abilities of traditional manufacturing processes.

What JLR says about NTT DATA

"Although NTT DATA is a big and well established company, it does not have the bureaucracy typical of other large consultants that often makes them slow and inflexible. In contrast, I have found NTT DATA retains the ability to react rapidly to our needs and respond in fresh ways. With the Refocus Programme we are attempting to deliver many projects and often do not have the resources or right skills internally. This means we need to rely on partners like NTT DATA to help us guide our thinking. We also need partners that can work with multiple platforms and advise us on the most pragmatic approaches by making unbiased recommendations without being tied to any particular solution. We have a good relationship with NTT DATA. They have a personable and relaxed approach that makes them easy to work with, but they also deliver."

Simeon Highton, Head of CRM for SAP CRM delivery Europe, UK and North America

A proven partner with top automotive marques

NTT DATA is one of the market leaders in areas relevant to JLR - the premium automotive and luxury retail spaces. In Germany we are the top supplier of IT services into the BMW Group and number three in both VAG and Daimler. In the UK we are the top supplier into McLaren.

We have long and deep experience in numerous projects for these brands across the entire value chain. From Digital and Data Strategy (we are the partner for JLR China in Digital), to IT Strategy, to Enterprise implementation to Operational Support.

We have already implemented many of the innovations that will become part of your programme, including Transformation of SAP CRM. Furthermore, we have delivered results using agile methodologies, often taking our customers on a journey that fundamentally changes the way they operate – for the better.

In this paper we explain how NTT DATA can bring substantial benefits to JLR's manufacturing and engineering programmes. We describe our track record of delivery to other automotive brands and we show why NTT DATA is a committed partner that can help JLR progress in several areas of its manufacturing and engineering functions.

Develop strategic platforms to support the Refocus Programme

Multiple critical technology platforms are used across the JLR business. Three of these are named in the IT North Star strategy - Adobe, Salesforce and SAP. NTT DATA has a centre of excellence for all three and we score highly as an integration partner. For Salesforce, we are now the principal partner within JLR, and for SAP we are the market leader in implementation across European automotive clients. We work on both, in concert, in the SM@RT programme in the European markets.

As a result of these JLR and third-party experiences, we have an independent view on what is possible for JLR. Within the Salesforce space, we have been developing and extending the capability for Lead Management and CRM. There is significant potential to add more capability, and critically, improve the adoption of this capability among retailers and NSCs. As a core part and enabler of many Refocus Programme initiatives, a wider Salesforce implementation offers an effective way for JLR to address its disparate CRM landscape across its marketing, sales and service regions.

It is important, however, to be realistic about coalescing everything into Salesforce. The SV-CRM SAP based platform is so embedded into the customer engagement business that untangling key capabilities will be potentially costly, and in some cases unnecessary. NTT DATA's aim is to provide the right guidance about what and when JLR makes strategic decisions on its SAP and Salesforce platforms.

Having implemented an agile model of delivery for Salesforce, we can take JLR on that same journey for SV-CRM and other platforms to achieve the efficiency goals that the Refocus Programme sets.

Supporting SAP at Daimler

As part of a long-standing global partnership with Daimler, NTT DATA is a key provider of consulting, app development, SAP and CRM solutions. NTT DATA has implemented and supported multiple technology projects globally, covering business functions ranging from customer data management and car product planning; to car retail sales/aftersales and rating and scoring leasing contracts.

For example, NTT DATA supports more than 35,000 global users of SAP application landscapes. Supporting SAP products and Web applications, NTT DATA delivers more than 30,000 tickets per year while reducing the cost of operations and improving turnaround times by executing all tasks from offshore.

How agility creates innovation to meet changing market demands

In our experience, the automotive industry's decision-making process is slow and uncertain. JLR can differentiate itself in the market by implementing a methodology that makes the business, as well as the technology stack, more agile. A prominent example of this being done successfully is Tesla, which can innovate quickly, unhindered by legacy systems and processes.

Agility is based on the principles of decentralised decision-making, empowerment, collaboration, feedback and constant improvement.

NTT DATA has extensive experience of helping senior management to implement and run agile processes that are coordinated to business goals. However, transitioning to agile isn't always straightforward, as moving an individual business function into agile may reduce costs, but there is little further value if its output is then stalled by the next process in the chain running to a slower script.

A more agile JLR will be able to increase productivity, predictability and quality, resulting in faster time to market and higher market share.

Improved customer engagement helps SEAT evaluate quality

NTT DATA developed mobile and web platforms that allow customers to evaluate their cars and report issues that the SEAT quality function can analyse and manage. By digitising the existing process, the solution has helped to increase customer feedback, improve customer engagement with faster responses and identify key client features in SEAT's cars.

How business-wide digital approaches will enable JLR to create extreme customer value

Business-wide digital transformation requires elimination of the divide between operational technology (OT) and information technology (IT), while ensuring no process is disrupted because of change.

NTT DATA can help JLR to integrate digital technology into every area of its business to fundamentally change how it operates and the customer value it delivers. The model is tailored to JLR's digital evolution but comprises two core elements: a delivery engine of design-led thinking, engineering excellence, and market-leading agile orchestration, and an innovation capability to create new digital services and revenue streams.

By exploiting digital technologies such as automation, AI, ML, cognitive computing, IoT and more, JLR will be able to manage the production and delivery of products and services more efficiently.

NTT DATA applies approaches including digital twins, DevOps, rapid prototyping and testing to enable faster creation of potentially successful concepts. Connecting agile DevOps techniques to an SAP backend enables a direct link between concept and practical implementation. This, in turn, enables better risk reduction and faster benefits.

Automating many routine business tasks will enable JLR personnel to take on higher level issues, such as reduction of technical debt, innovation and problem solving.

With data analytics, NTT DATA adds a new depth to quality through predictive intervention to avoid issues arising in the first place. Each component, however low cost, can be provided with its own auditable data pedigree, so that all relevant details are known in real time as production takes place and during sale and aftersales.

It is also vital to ensure that the right flows of quality components, parts and raw materials are always available as needed. This means correct prediction, strong data pedigree systems to manage quality, and a well-managed supply chain. This will help JLR to optimise stock and throughput of goods to meet fluctuating and constantly evolving demand.

DevOps approach to build online car configurator for premium brand

A premium automotive manufacturer with a comprehensive sales network in more than 140 countries and 30 production and assembly sites in 14 countries, engaged NTT DATA to build an online car configurator to serve its three brands across global markets. This was a complex project that involved multiple stakeholders and a large array of legacy IT infrastructure and systems.

NTT DATA used a DevOps approach for the delivery of the entire project, encompassing conception, design, implementation, manual testing, test automation, operations, project management and roll out support. The solution provides a best-in-class user experience supported by analytics functions for online marketing and integration with the manufacturer's CRM.

Deploy a new partnership ecosystem to accelerate innovation

Today's automotive sector is increasingly shaped by rapidly developing market demands. Technological change is accelerating, requiring new tools and ideas; consumer expectations are evolving requiring rapid innovation; and customer buying journeys are being fragmented by new entrants.

Many automotive manufacturers find the environment challenging because they lack the ability to quickly scale up innovations to seize new market opportunities. The answer is to be able to work with multiple partners to co-create solutions and accelerate development. However, to do this you must have a significant rethink about how your organisation is structured and how you can build flexibility within a broader ecosystem. If you can connect to market leaders succinctly you will be able to adapt and innovate quickly. New ways of managing partners and vendors are needed to enable JLR to enable existing partnerships to be scaled, new partners to be rapidly integrated, new vendor functionality to be introduced quickly and to enable improved data quality and sharing.

Intelligently manage data for manufacturing - focused on customer value

Factories produce things, but they also generate huge volumes of data from production machines and systems. The quantity of data is rising exponentially due to the proliferation of sensors and the move of primary storage to the near-limitless capacity of the cloud. Data feeds analytics, artificial intelligence and machine learning to streamline processes, increase efficiency and reduce manufacturing costs.

Data is also key to achieving a closer connection between production and market demand. This gives management a clear view of market requirements, understanding of trends and early view of decision parameters, leading to greater market agility and a better way to build more customized products. Data analytics extends far beyond production issues, therefore, enabling better "packaging" into complete solutions and unlocking new markets for product-related services.

Within JLR, many people talk about data and how it can be harnessed. As we have interacted with JLR's organisation at various levels we have seen that some efforts are being duplicated with the potential for initiatives to work against each other.

This is understandable. JLR has a fragmented data technology landscape with multiple legacy systems that result in cumbersome access to data such as sales records, customer records, production and order management information. This not only makes it hard to meet rising customer expectations for seamless digital journeys, but also slows the delivery of digital capabilities.

Possibly even worse is that people do not trust the data, improving data quality is one of the highest priorities. Without quality data, backed by lean and standardised business processes across boundaries, everything built by JLR will be at best unreliable and uncompetitive, and at worst, useless. NTT DATA is already engaged in helping JLR address its data quality issues through the SAP Data Quality Management project.

Defining the JLR digital strategy in China

In China, NTT DATA is working closely with JLR to develop a digital strategy under a project called the JLRC Digital Strategy Consultancy Initiative. The project spans four areas:

1. **Mapping:** NTT DATA is undertaking detailed Customer Journey and Experience Mapping to help create a seamless, connected and superior customer experience across all digital platforms.

2. **Priority setting:** NTT DATA is creating ideas and prioritising initiatives according to an agreed framework and in line with the key themes of Digital Roadmap and Design. We are also assisting the JLRC digital team in the design of quick win initiatives.

3. **Organisation:** NTT DATA is helping to design the next phases of JLRC's Digital Organisation. We are identifying the key areas of the organisation that need to change first and how this can be phased across the rest of the business.

4. **Cooperation landscape:** NTT DATA is analysing technology partners and consultancies that JLRC should engage with for each initiative and scenario. This includes how JLRC should engage these partners and consultancies and identify what internal actions are needed. This work will also consider existing JLR Global Digital Programmes, Partnerships and Planning.

How the connected car can enhance vehicle development and quality

Vehicle telematics, dashcams and other sensors comprise one of the fastest developing technology areas in automotive, giving manufacturers innovative ways to support product development, enhance vehicle maintenance and create new revenue opportunities. The premium segment is one of the prime movers in this area, putting JLR at risk of falling behind without focused investment.

Combining connected car capabilities with other customer touchpoints, such as the InControl app, the web and Social Media channels, will provide a rich source of data. JLR will then be better placed to build an accurate digital footprint of the customer as well as harvest car condition information that provides insights into how vehicles are used and how they wear.

The challenge is that the proliferation of the technology is creating a flood of data which is unwieldy, expensive and in many cases untrustworthy – ultimately not creating useful insights. At NTT DATA we have developed a platform that makes sense of the high data volume by combining direct data collection, such as car location, vehicle data and safety and security alerts, with derived customer data such as travel patterns, music tastes, driving behaviour and even income bracket to create powerful insights.

NTT DATA recommends an approach which starts with a data strategy that defines JLR's vision for connected car and customer data. The next stage would then be to help you define optimised end-to-end customer journeys incorporating multiple connected car use cases.

NTT DATA is investing in building a connected data platform to more easily connect to JLR legacy platforms, such as Salesforce and SV CRM. We can refine our Connected Data Platform to ensure that the JLR Customer Data Platform accesses the right data and can help the hyper-personalisation process.

JLR and NTT DATA already work together successfully

NTT DATA is currently engaged in several projects with JLR in the UK in different business areas. An important element of these successes has been NTT DATA's experienced and stable teams that have provided much-needed consistency and have shown they are able to respond and roll out functionality quickly and effectively. Three prominent examples include:

1

SM@RT

NTT DATA took over an incomplete and stalled project from a long-term incumbent, introducing agile ways of working and implementing changes that were previously considered unachievable. The result was value delivered sooner than that envisioned in the original plan.

2

CXP

NTT DATA has helped JLR to transition away from multiple vendors by combining development and support. Introducing scaled agile scrum teams has increased the frequency of deployment, supported by the successful transition to a higher proportioned offshore delivery team.

3

Data quality

Working flexibly and collaboratively within JLR requirements, NTT DATA has turned a challenging project around by taking charge of inter-JLR relationships and investing in additional resources to meet original timelines.

Contact

Find out more about how NTT DATA can help Jaguar Land Rover achieve more profitable growth as it implements its Reimagine Strategy.

Dominic Rowles
JLR Client Partner at NTT DATA
dominic.rowles@nttdata.com

NTT DATA

NTT DATA UK
1 Royal Exchange
London
EC3V 3DG
020 7220 9200

NTT DATA is a leading consulting and IT services provider, combining global reach with local expertise in over 50 countries. Whether it's business transformation, enabled by digital, data and technologies, safeguarding against security breaches, improving operational efficiency or driving new revenue streams, our vision as the Trusted Global Innovator can help organisations navigate the ever-changing digital landscape and deliver outstanding results.

NTT DATA offers a portfolio of best-in-class consulting services and innovative enterprise solutions tailored to suit the entire life cycle of IT investment. Supported by our international Centres of Excellence, our team of local experts can deliver on a wide range of services from transformation to agile development and intelligent automation for industries across manufacturing / automotive, banking, insurance, telecommunications, media and public services.

For more information about NTT DATA please visit **uk.nttdata.com**