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Anaplan



**Driving operational excellence
in the automotive industry:**

Deloitte's Integrated Planning Solution
for Automotive, Powered by Anaplan

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The global automotive industry is undergoing dramatic change across the entire value chain.

Introduction

Major original equipment manufacturers (OEMs) are reinventing themselves as new players enter the sector, and market forces are responding to economic volatility and the need for a more sustainable future.

Suppliers to the automotive sector are also being disrupted as a result of their dependence on stable and efficient supply chains.

Ever-tightening margins mean that suppliers need to match supply and demand as closely and quickly as possible while managing cost, quality, and risk. Look no further than 2021, when shortages of a single component - semiconductors - resulted in \$210 billion in lost revenue.¹

The reality is that the industry requires manufacturers to unlock new channels to their

cash flow as a critical step toward funding the investments their companies need to continually innovate and reduce costs. Now, leading auto manufacturers are connecting product development teams, plant operations teams, and finance teams to ensure their long-term technology roadmap, engineering platforms, and business strategies are aligned with their resources to deliver customer and shareholder value. The cornerstone of this movement is Connected Planning, an essential ingredient for successful enterprise digital transformation and agile business planning.

Connected Planning enables stakeholders to significantly accelerate and improve decision-making by automating the gathering and processing of relevant data across the entire enterprise.

This paper examines the challenges the auto industry currently faces, how Connected Planning is paving a prosperous future for automakers that leverage it, and what lies ahead for the future of vehicle production.

\$ - \$210bn in lost revenue due to semiconductor shortages

1. Waylan, Michael, "Chip Shortage Expected to Cost Auto Industry \$210 Billion in revenue in 2021" CNBC, September 23, 2021

The key trends transforming the auto industry

The fusion of automotive and technology

Automotive manufacturers are the new tech giants.

Embracing everything from artificial intelligence (AI) and connected cars to autonomous vehicles, OEMs are witnessing huge changes. The manufacturers are increasingly embedding software into their vehicles to help them innovate, especially in light of incoming 5G and Internet of Things (IoT) devices making every car connected with the ability to collect data and self-update.

This transition from hardware manufacturer to software developer means OEMs will be investing more than ever in Research and Development (R&D) to stay ahead of the competition, changing production lines and development processes, and working with new data-driven business models.

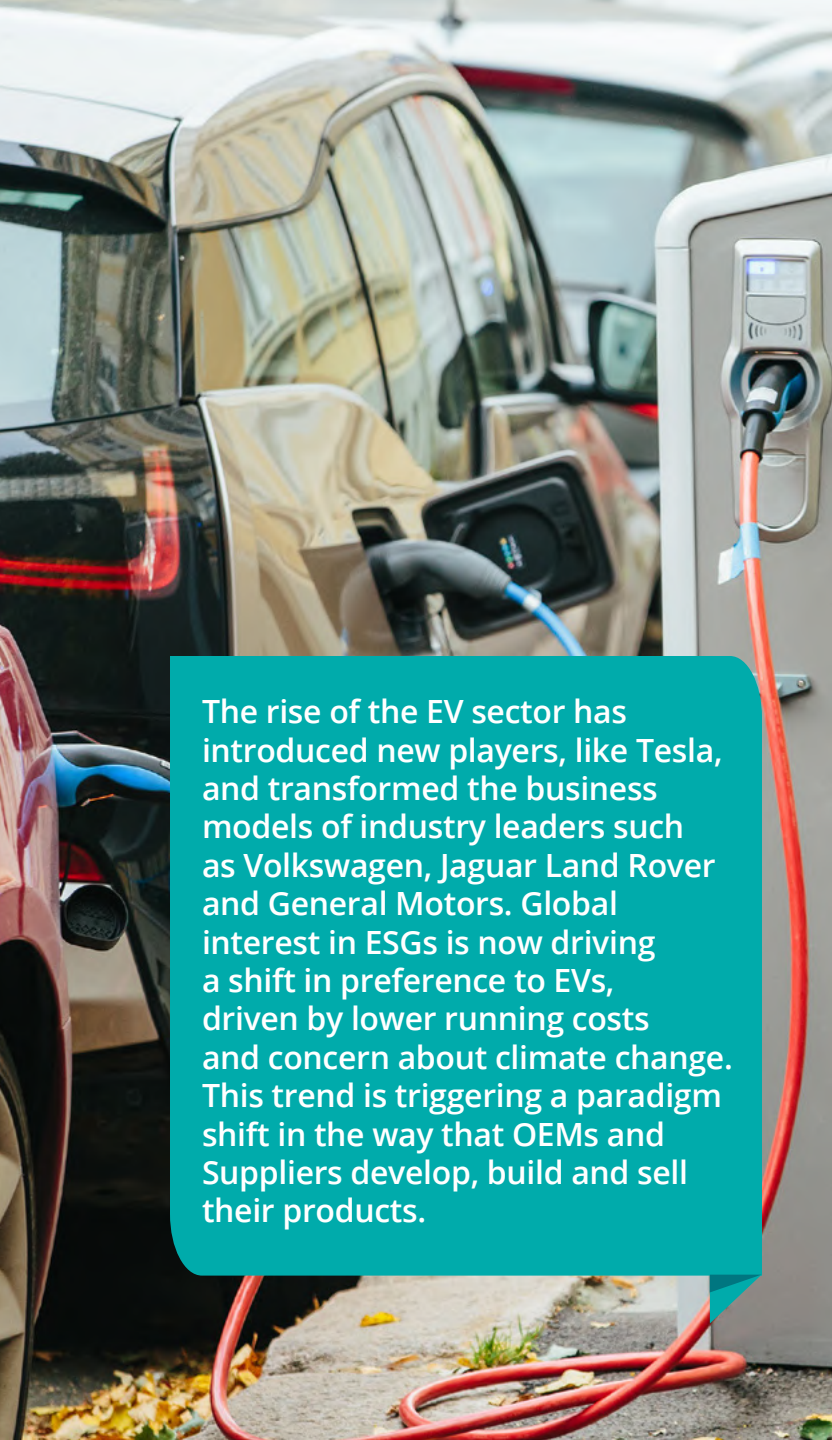


OEMs are driving differentiation by integrating connected technology and data-driven features—such as car connectivity, assistance systems and infotainment solutions — into new vehicles. However, there is a limit to consumers' willingness to pay extra for technology.

Source: Deloitte, 2022 Global Automotive Consumer Study

Sources

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<https://global.toyota/en/newsroom/corporate/35244091.html>



The rise of the EV sector has introduced new players, like Tesla, and transformed the business models of industry leaders such as Volkswagen, Jaguar Land Rover and General Motors. Global interest in ESGs is now driving a shift in preference to EVs, driven by lower running costs and concern about climate change. This trend is triggering a paradigm shift in the way that OEMs and Suppliers develop, build and sell their products.

The key trends transforming the auto industry

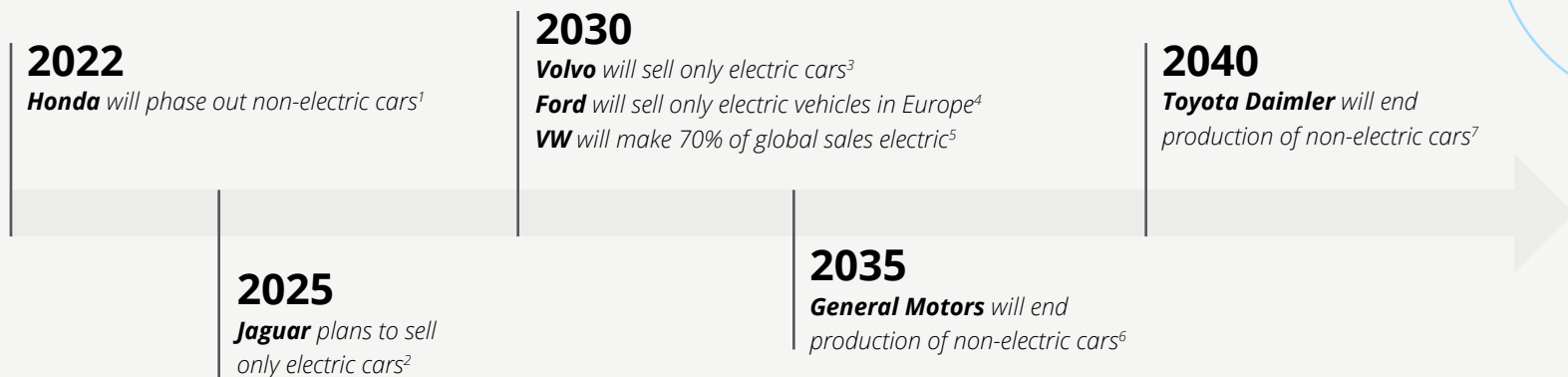
The meteoric rise of electric vehicles

Having been around since the early 1990s when Ford released its first concept car, the popularity of electric vehicles (EVs) has grown amid climate change concerns and increased air pollution in cities across the world.

This is forcing stalwarts to up their game and double down on being more efficient throughout their supply chains, deliver a more customer-focused experience, and spend more on R&D to drive innovation.

Beginning of the end for petrol cars

When will the major manufacturers stop making and selling petrol cars?



Sources

- <https://news.sky.com/story/honda-to-stop-producing-gasoline-only-vehicles-by-2022-11842268>
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Digital-first customer experience

As this complex ecosystem rapidly changes, the basis of competition in the automotive market has evolved away from a focus on horsepower and miles per gallon (MPGs) to optimising and digitalising the entire product lifecycle - from ideation to after-market services, all while providing the best possible experience for the customer.

"We see a convergence of customer experience—from initial contact to post-sales—between the automotive showroom and the digital world, both outside and inside the car."

Christopher Nürk, Enterprise Performance Leader Germany and Automotive Partner

"Buying decisions of customers are influenced more than ever before by access to a variety of information formats and channels—all the way to virtual driving experiences. However, this will not replace a customer's desire for an actual test drive."



Customer-centric transparency

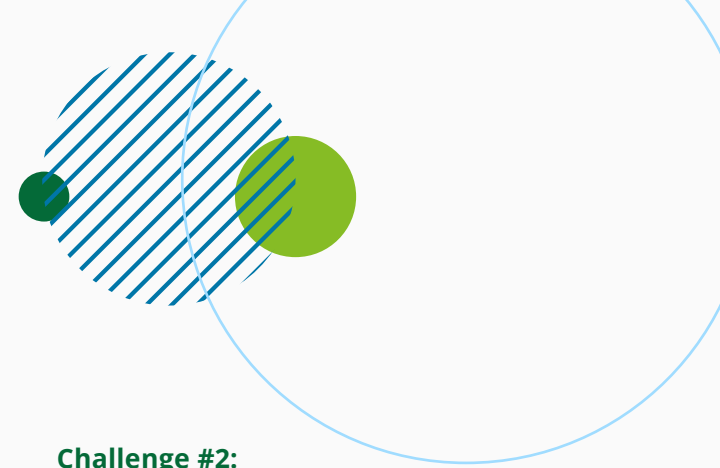
Customers are now familiar with tracking their goods along the entire buying process thanks to fast food platforms and the retail sector.

This trend for visibility is the experience customers are looking for when they purchase a car.

Part of delivering a high standard of customer experience is taking advantage of innovative, customer-centric technologies to give customers greater transparency throughout their purchasing journey.

“Auto manufacturers need to give customers real-time visibility on what’s happening not just to the orders they placed, but also on the after-sales service, spare parts and servicing. Visibility of customer vehicle allocation and communication in real-time, whether that’s through dealers or directly will be paramount.”

Rajeev Singh, Partner and Automotive Sector Leader, Deloitte India



"[During the pandemic] the OEMs realised that because they work through such an intricate mechanism of tier one, tier two, tier three, and tier four suppliers in multiple geographies, they have little oversight or control over their supply chain."

Rajeev Singh, Partner and Automotive Sector Leader, Deloitte India

"This is so important because every single nut, bolt, and chip has a role to play when making a vehicle and are required at the right time in the right quantities in the right place. OEMs must be able to predict disruption and ensure they are planning more effectively so they can mitigate the risks that come from uncertainty."

Seismic shifts in the supply chain

Challenge #1:

OEMs, dealer networks, National Sales Companies (NSCs), and finance companies must shift focus from efficiency and profitability to agility, connectivity, and sustainability to remain successful.

Challenge #3:

OEMs need to focus on having the ability to predict various scenarios and build sensitivity analysis, depending on what is happening in each geography.

Challenge #2:

Data sources are siloed and managed in spreadsheets, leading to Excel fatigue, lack of real-time visibility, and outputs that are prone to human error.

Challenge #4:

Product development, plant operations, and finance teams must be connected to ensure long-term technology roadmaps and business strategies are aligned with resources.

The growth of Transportation-as-a-Service

People are increasingly transitioning from traditional vehicle ownership to Transportation-as-a-Service, vehicle subscription services and non-traditional commuting solutions.

For example, electronic scooters, e-bikes, autonomous vehicles, and ride-sharing services (i.e., Uber, Grab, etc.) are increasingly common in urban settings.

This could eventually spell the end of owning cars and human driving altogether. Silicon Valley is betting on this; in fact, Uber, Grab, and their competitors become more attractive investments without the cost of drivers.

- In 2021, Honda provided a legally-approved Level 3 vehicle (letting drivers take their eyes off the road).¹
- Toyota operated a potential Level 4 service around the Tokyo 2020 Paralympic Village.²
- Nuro has been allowed to start autonomous commercial delivery operations in California.³
- In China, two publicly accessible trials of robotaxis have been launched.

Sources

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2. <https://global.toyota/en/newsroom/corporate/29933371.html>
3. <https://www.bbc.co.uk/news/technology-55438969>



Implications for the road ahead

The aforementioned trends are having a significant impact on traditional automotive business models. In this new era of Connected Planning:

- Leading industry players will need to keep pace with newer, more nimble players entering the EV sector, requiring accelerated production lines and increased innovation.
- R&D investment has been redistributed to increasingly invest in software solutions instead of expanded product ranges.
- Supply chains will be intensely scrutinised and require constant modification as uncertainty continues to dominate.
- Customer-centricity will be key to competitive advantage as consumers conduct increasingly digital buying journeys.
- Transparency and connection across the purchase journey will be demanded by customers requiring greater levels of connectivity between all their suppliers.
- Vehicle inventory will fall significantly in some markets due to increased utilisation and the rise of Transportation-as-a-Service.
- There is an increased link between software and hardware, and the convergence of the front and back office in product lifecycle management.
- Successful Transportation-as-a-Service and vehicle subscription models will be driven by customer demand for convenience, flexibility, and availability of vehicles.

Source: Deloitte, 2022 Global Automotive Consumer Study



The benefits of Connected Planning

Progressive auto manufacturers and suppliers using a joint Deloitte and Anaplan solution have already discovered the benefits of Connected Planning.

The power of the Anaplan platform combined with Deloitte's industry expertise enables third parties to break free from the status quo and bring disparate data sets together to accelerate time-to-market as they create next-generation vehicles.

While an automaker's finance department - where spreadsheets are ubiquitous - would seem like the first logical function to leverage the efficacy of an automated, collaborative business planning platform, other departments such as sales, marketing, supply chain, and engineering can also benefit greatly.

When operational silos are broken down and data is seamlessly shared across the organisation, manufacturers can better maximise the value they offer.

"OEMs that are removing functional silos from their planning processes not only gain consistency, but also significantly improve their reaction times and data quality—which in turn helps achieve better cost-efficiency and profitability."

Christopher Nürk, Enterprise Performance Leader Germany and Automotive Partner



**Connected Planning goes beyond visibility across the organisation.
Manufacturers and suppliers can benefit in myriad other ways:**

- Syncing all enterprise planning data into a single standardised source of truth eliminates operational silos and unites departments on one platform, yielding end-to-end data visibility across the organisation.
- Enhancing collaboration with customers, suppliers, and other network partners, while optimising execution by leveraging risk-informed, data-driven, and scenario-based business planning.
- From engineering, procurement, HR, and sales, to supply chain and executive management teams – all functions are unified under one connected and collaborative business planning environment.
- Leveraging a big data-ready platform that delivers valuable, actionable insights allows enterprises to make better business planning decisions and mitigate risk.
- Increasing the timely utilisation of assets and resources results in an increased return on invested capital as well as an increase in the return on R&D, driving innovation.
- Improving product margins by forecasting the financial metrics for each product being developed, allowing resources to be focused on the highest margin products, driving revenue.
- Improving demand forecasting accuracy by leveraging embedded optimisation capabilities, resulting in products delivered on schedule and accelerating time-to-market, therefore speeding time-to-revenue.

Initiating Connected Planning in your organisation

Start in one area of your business - usually the one with the biggest pain point - and then, after seeing the positive results of Connected Planning, expand it to other parts of the enterprise.

The strategy is what is called the “Honeycomb Effect” because Anaplan’s Connected Planning platform can be used across an entire tech stack - one platform and one code stream leveraged across all business functions.

The Honeycomb Effect



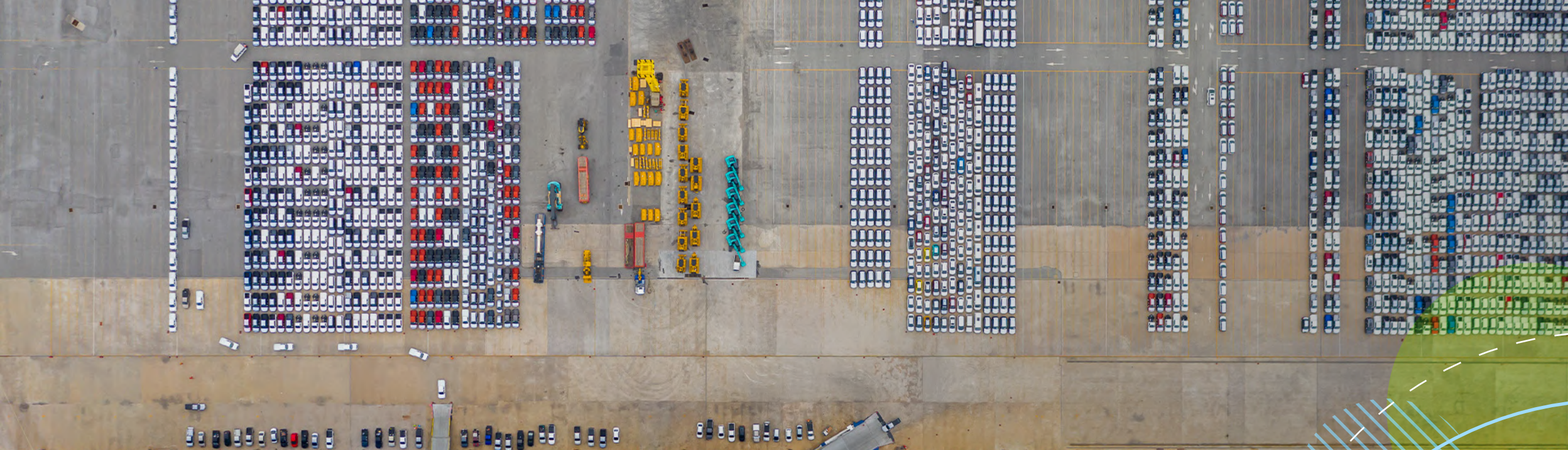
Conclusion

The comprehensive and rapid reorganisation of the automotive sector over the next decade will have far-reaching consequences for the entire industry and its value chains. Legacy structures and approaches will have to change quickly to cope with the new developments we describe.



Connected Planning will be at the heart of this transformative movement

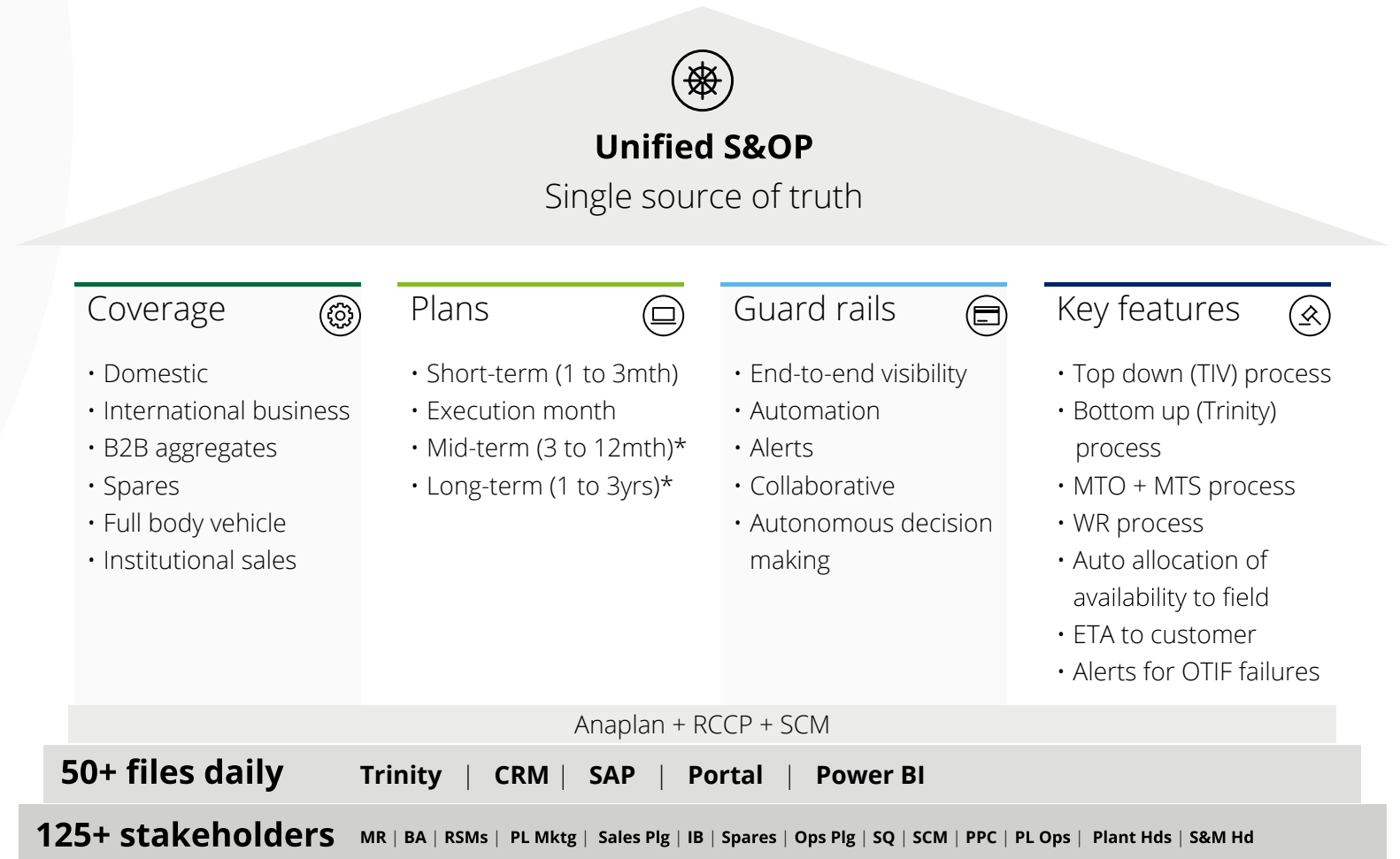
The auto manufacturers and suppliers that harness the power of Connected Planning will thrive, as they increase operational efficiencies, reduce risks and costs, hasten time-to-market, and develop even more customer-centric strategies to see them well into the future.



Case study: driving volume to value with a leading multinational automotive manufacturing company.

Overview

A multi-billion dollar global vehicle and automotive products manufacturer has embarked on an enterprise-wide transformation strategy, with particular emphasis on people, processes, and technology. The organisation moved its entire global sales and operations planning (S&OP) process onto the Anaplan platform in the space of just 20 weeks.





The challenge

- Planning is done in Excel and offline so data is not available on a single platform.
- Offline work is completed by bringing people, not systems, together.
- Forecasting and scenario modeling are difficult.
- Had previous experience with Anaplan in a specific business unit, so launched an initiative of improving S&OP maturity across the value chain.

The approach

Deloitte helped the global automotive player to implement Anaplan in a phased manner, beginning with S&OP use cases. The finance function was then included with a long-term view of transforming the performance governance by eventually **connecting** all the key plan and review elements on one **common platform**.

Deloitte and Anaplan have a unique value proposition

Integrated view across value chain



End-to-end integrated planning from Due date (Dd) / Safety stock (Ss) - manufacturing/Ops – R&D - sales/Marketing – Dealers – Finance – HR.

Business-owned, scalable solution



Business-owned, scalable platform that is customisable for your business, based on your unique processes.

Trusted partnership since first project

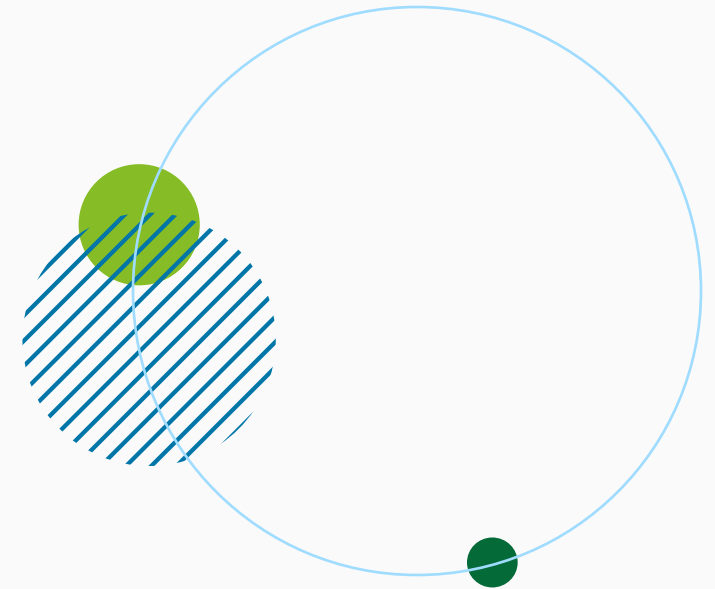


Trusted Anaplan-Deloitte partnership that knows your business and delivers every project to schedule.

Simplified commercial construct



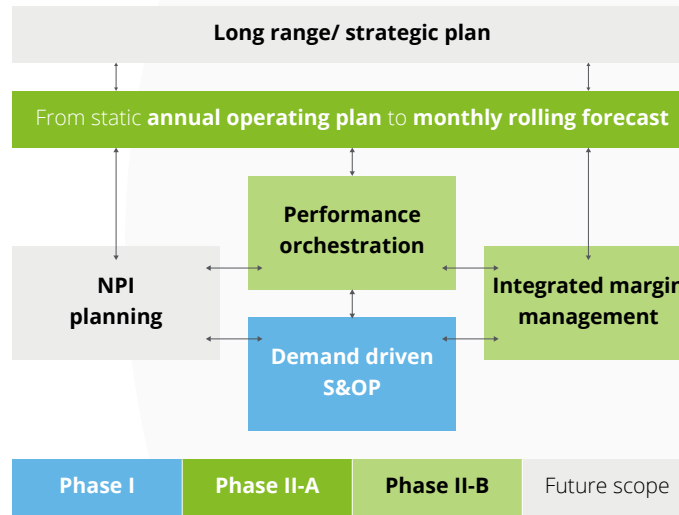
Single commercial construct, agreement across all functions, use cases, with a lower unit rate.



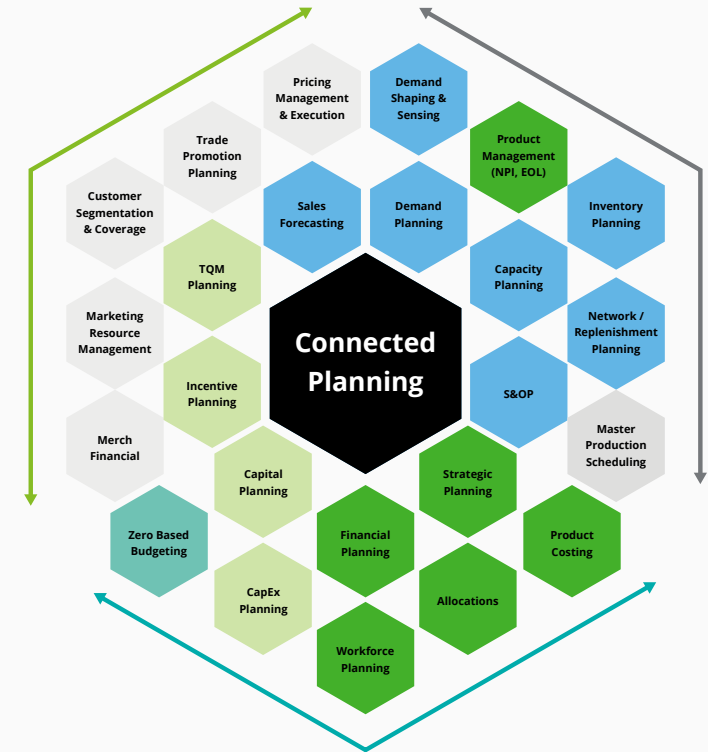
Deloitte also acted as a guide and mentor with the challenges that are commonly associated with any digital transformation programme, such as lack of in-house IT skills, inefficient management of data, and managing change.

The organisation’s broad S&OP agenda included a large value chain community of dealers, suppliers, and internal functions. It was therefore critical to the success of the Anaplan deployment to ensure that all stakeholders could see the value in the transformation project, whether it was automating mundane tasks, simplifying processes, or integrating enterprise-level systems such as SAP and CRM.

Building blocks for effective business partnering



Connected Planning roadmap



The impact

Anaplan and Deloitte have become central to delivering transformation within this globally recognised leading automotive company by bringing transparency, openness, and accountability to the company's S&OP functions.

An integrated planning platform delivers keys benefits to stakeholders across the automotive manufacturer and its dealer network


System	Key stakeholders	Anaplan enablers
Leadership Team	Executive Leadership BU Head	<ul style="list-style-type: none"> Business agility to react to changing market conditions Integrated top-down, bottom-up tracking against actuals
Dd-Ss Planners	Demand, Supply Planners RM and Procurement Planners	<ul style="list-style-type: none"> Integrated operations data with financial impact Rapid scenario planning for various supply chains
Operations, Manufacturing	Plant Managers Production Planners	<ul style="list-style-type: none"> Connect production plans across volume, cost, and profits Plan and schedule optimum FTE / line manning
Sales, Marketing	State Head Regional Sales Managers	<ul style="list-style-type: none"> Rapid top-down, bottom-up analysis of sales plans Visibility of price and profitability for sales negotiations
Dealers	Dealers	<ul style="list-style-type: none"> Visibility of vehicle allocation Ease of consolidation of bottom-up demand
R&D	R&D Heads New Product Development Teams	<ul style="list-style-type: none"> End-to-end project lifestyle planning with WBS and actuals Scenario plan various project risks, schedules, and costs
Finance	FP&A Leads Financial Business Partners, Controllers	<ul style="list-style-type: none"> Granular P&L planning and variance analysis CapEx, depreciation, and cashflow analysis
HR	Workforce Planners Incentive and Compensation Planners	<ul style="list-style-type: none"> Plan FTEs according to production volumes Optimise direct, indirects, and contract mix

Unlocking value through Connected Planning



Key ask 

Value 

Enterprise effect 

4. Balance sheet / cash flow

- Gain insight into how Connected Planning decisions drive working capital metrics
- Quickly assess **impact** of working capital decisions with full transparency
- Align strategy to maintain **net cash flow** and acceptable **inventory levels**

3. Rolling forecast & actual reporting

- Timely and accurate reporting with granular and multidimensional profitability computation
- Granular and comparative view of expenses across **plans** and **products, and scenario analysis**
- **Variance analysis** - plan vs actuals; identify **impact** of drivers and **highlight exceptions**
- Move to continuous rolling forecast from single budget per year
- **Multi-dimensional profitability view**; insight into **financial impact** of **operational decision**

2. ATP & KPI report

- Provide expected date of delivery to further enhance user experience and drive better order fulfilment
- Fully **integrated** no-touch daily reporting of all key KPIs using **single source** of truth
- Order fulfilment at the centre of decision making enabled through **ATP**
- Drive **automation and digitisation** of enabling shift in focus from process / policy compliance to business decision support

1. Demand consensus & supply

- Detailed driver-based revenue and VME planning with unified view – sales and production linked to S&OP
- Generate **real-time insights** that foster accelerated decision making; gain efficiencies as **RSM/PLMktg/PL** using single source of truth
- **Weekly refresh process** that caters to changes in demand during execution month
- **Drive more collaboration** in creating and **assessing scenarios** across functions
- Rate one single **unified plan** using a single source of truth

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