

# Media Backgrounder

## Mobility

October 2020

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### Overview

2020 has been one of the most disruptive years in history, and the automotive industry has been particularly heavily hit. The almost ubiquitous lockdowns and shelter-in-place orders not only shuttered plants but almost overnight drastically reduced the need for personal cars. The ongoing trend for home working means that the pipeline for new vehicle sales is significantly lower than anticipated. Consumers have now become accustomed to working from home and ordering goods and services to be delivered to their doorstep.

However, the automotive industry was already heading for dramatic change – recent events are just accelerating an inevitable transition to a future-focused around mobility rather than vehicles.

The automotive industry's new reality will increasingly focus on transportation services rather than manufacturing and selling cars. The industry is entering a more virtual world, and the automotive industry needs to embrace this to diversify revenues and prepare itself for a new consumer experience model. Automotive brands will soon need to decide what element of mobility they want to focus on – whether that's manufacturing or service delivery. However, all will need to adjust their focus away from today's design and manufacture of vehicles towards a digitally disrupted future, where business plans are re-centered around the consumer experience.

### Key Mobility Drivers

The other key driver for change has been the unprecedented levels of connectivity we all enjoy. An extraordinary number of people, devices and "things" now continuously collect and share terabytes of data over 5G networks. Our growing ability to process and analyze this data has led to many exciting new personalized services. The availability of this data is also causing the blurring of lines between traditional industries – consider that for centuries, financial services were the preserve of banks. Today, people purchase a significant percentage of financial services from retailers, telcos or other businesses. Our "always on" lifestyles also mean that we increasingly expect instant gratification delivered by mobile apps in all areas of our lives.

These trends will start to converge with the emergence of Mobility as a Service (MaaS). This concept essentially offers travelers and commuters a single interface to plan and pay for each trip via public transport, taxi services to deliver transportation on demand. Soon, autonomous cars will join that line-up. But while this trend will bring increased convenience and cost-savings to consumers, it essentially relegates vehicles themselves to commodity status. And this also means currently sought-after branded components, such as tires or brakes, will increasingly become irrelevant.

- **Consciousness** - In many markets, cars are no longer considered the status symbols they once were. Particularly in urban areas, people are less interested in the vehicle they're driving and more interested in getting to their destination as fast, cost-effectively and conveniently as possible. There's also a strong trend towards sustainability – consumers are increasingly considering environmental concerns in their decision making and are looking for brands aligned with their values.
- **Connectivity** - We now enjoy an unprecedented level of connectivity – with an extraordinary number of people, devices and "things" now continually collecting and sharing terabytes of data over 5G networks. Our growing ability to process and analyze this data has led to many exciting new personalized services. Consumers' always connected lifestyles and reliance on their mobile phones mean that people expect the same instant gratification delivered by apps in all areas of their life.

Cars are already becoming more connected. For example, Ford's entire commercial fleet has been fitted with a modem and associated services as standard – delivering enhanced security, entertainment, and connectivity on the go and the ability to communicate without the need for a carrier network. Today's autonomous cars are continually collecting an incredible amount of data about everything around them.

- **Convergence** - The combination of vast bandwidth and emerging technologies such as cloud, AI, and big data is making it possible to effectively leverage the information collected to improve the customer experience and to create entirely business models - changing industries as we know them and threatening those whose positions were once considered unassailable. This is also causing the blurring of boundaries between traditional industries – consider that for centuries, financial services were the preserve of banks. Today, a significant percentage of financial services are purchased from retailers, telcos, or other businesses.

## Mobility as a Service

These trends are driving with the emergence of Mobility as a Service (MaaS). This puts consumers at the center of service delivery – by essentially offering them a single interface to plan and pay for each trip via public transport, taxi services to deliver transport on demand. Soon, autonomous cars will join that line-up. But while this trend will bring increased convenience and cost-savings to consumers, it essentially relegates vehicles themselves to commodity status. And this also means currently sought-after branded components, such as tires or brakes, will increasingly become irrelevant.

This industry transformation will not happen overnight – Fujitsu sees the opportunity for change in the Now, the Near and the Far.

## The Now, the Near, and the Far of the Automotive Industry

### Now

Automotive manufacturers are looking at massively reduced revenues for this year. And, with a significant ongoing reduction in the need for people to commute to work, future vehicle sales are also expected to remain low. It is tempting for manufacturers in this situation simply to reduce spending. However, the priority for automotive manufacturers is to make balanced, smart decisions that address short-term needs and lay the foundation to deliver medium- and longer-term objectives. The immediate opportunity is to reduce costs by investing in the right technologies that drive digitalization further into manufacturing processes to optimize production. Exploring opportunities for revenue diversification will also be critical. These steps should be taken in the context of where they plan to fit into a future-focused around Mobility.

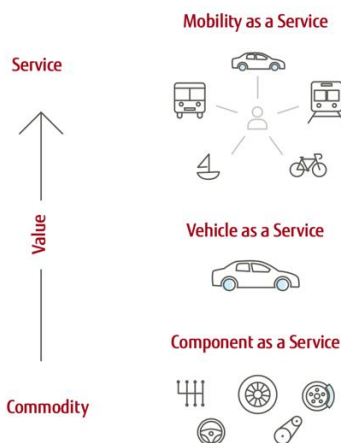
### Near

The next step will be for manufacturers to accelerate the diversification of new revenue streams by monetizing their data. The industry already represents one of the most data-driven industries with digitized factories, digital twins, and the data collected by an increasing number of vehicles today. The opportunity lies in finding new customers for that data.

### The Far

Looking further down the road, manufacturers must define their vision of the customer experience they want to deliver in a future MaaS scenario. There are three primary directions that their business models could take. With the acceleration of change brought about by this year's pandemic, they are expected to emerge as early as 2025.

- **Mobility as a Service** - At the customer-facing end of the MaaS spectrum will be the pure-play Mobility as a Service provider (MaaS) – who will offer services to businesses and individuals for a monthly fee. They will enable urban consumers to use apps to compare all available transportation modes at once, considering factors such as cost, speed, traffic, or sustainability, and then select the most convenient one. Over time the vehicle options might also include autonomous vehicles, while service delivery will extend beyond pure transportation options, such as incorporating the delivery of online purchases or entertainment on the go. This mobility play is a potentially huge market and is open to many businesses not currently involved in transportation or automotive manufacturing.
- **Vehicle as a Service (VaaS)** - Existing vehicle manufacturing will continue, but the companies in question will no longer have to bear the capital expenditure of manufacturing the car. These businesses will provide autonomous fleets for use by mobility services and will replace individual car ownership. However, they will act as intermediaries – selling B2B to MaaS providers.
- **Components as a Service (Caas)** – consumption-based delivery and pricing will be extended to the entire automotive supply chain. Individual parts, from engine parts to seats, will be sold as a service, with the cost recovered over time based on usage. The industry will realign to form new partnerships that deliver combinations of components -such as the possible future “transmission as a service” offering.



### Fujitsu and the Future of Mobility

Fujitsu has more than 50 years of experience working within the automotive industry, and partners with car manufacturers such as Toyota, Nissan, Honda, Mazda, Subaru, Mitsubishi, Suzuki, Isuzu, Volkswagen, and Ford. The upheaval of the industry is not a surprise to anyone. However, the events of this year have shortened the traditional S curve of change. Fujitsu is working with the industry as a digital transformation partner, helping them find a path to their future selves. Its approach to supporting automotive manufacturers is to take a collaborative and partner-oriented approach to develop solutions by combining automotive industry insight with IT innovation to create cutting-edge industry solutions.

Fujitsu brings not just consultancy and technology know-how, but also a framework for change. A key element in this process is Fujitsu's co-creation process, which leverages its proven Human Centric Experience Design methodology. This process sees Fujitsu engage with leaders from automotive manufacturers in a workshop setting, which encourages them to imagine where they want to fit into the future of mobility. The next step is to build the evolution path towards their new reality.

### Key technologies

Fujitsu's automotive technology solutions focus on key issues across the entire value chain and include:

- **Fujitsu's Mobility Digital Twin platform** is at the heart of new MaaS ecosystems that enhance vehicle functions and safety, as well as open, flexible, and innovative ways to realize future mobility today. The terabytes of continuous data collected from millions of vehicles can be turned into digital simulations.
- **Mobility-services platform** – In 2019, [Fujitsu announced a collaboration with an affiliate of the Ford Motor Co.](#), Autonomic, to provide a robust mobility-services platform. By integrating Autonomic's cloud services with Fujitsu's proven technologies designed for the auto industry, the two companies have delivered the Transportation Mobility Cloud (TMC) and Fujitsu systems integration services to the Ford Motor Company, followed by a rollout to other automakers globally.
- **Connected Vehicle Security** – As more vehicles are connected to the network, they are increasingly prone to the growing risk of cyber-attacks. [Fujitsu announced a collaboration with Upstream](#), which is a vehicle security start-up from Israel, to develop a comprehensive connected vehicle security solution that can detect the threats not only in vehicle side but also in center side.

### Online resources

- Read the Fujitsu blog: <http://blog.ts.fujitsu.com/>
- Follow Fujitsu on Twitter: [http://www.twitter.com/Fujitsu\\_Global](http://www.twitter.com/Fujitsu_Global)
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- For regular news updates, bookmark the Fujitsu newsroom: <http://ts.fujitsu.com/ps2/nr/index.aspx>

### About Fujitsu

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