

Automotive Industry: Trends, Opportunities and Growth Drivers

INTELLIGENCE REPORT PRECIS

CONTENTS

Report Breakdown

01 GLOBAL GROWTH DRIVERS

Key lessons from global Large Lead Enterprises (LLEs) on opportunities for future growth in the sector. *Profiling LLEs, their success factors and growth drivers to identify tangible and replicable opportunities for sector growth locally.*

02 SOUTH AFRICAN CONTEXT

South African policy enablers and overview of key trends. *National policy overview, national sector performance data and key priorities for sectoral development*

03 KZN CONTEXT

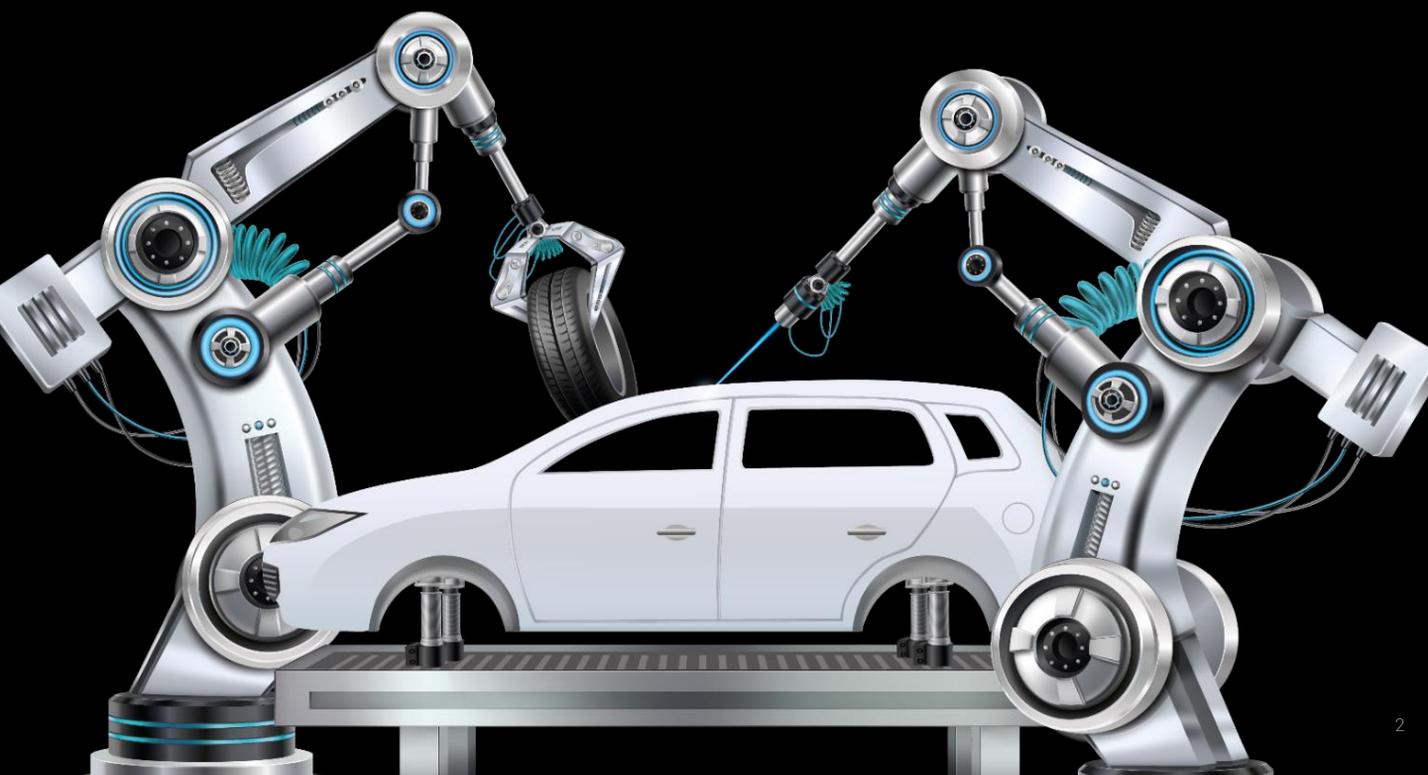
Sector profile, current sector performance and impact of COVID-19 of sector sustainability. *Key local value chain dynamics and implications of the crisis on local operations and value chain performance.*

04 WHERE TO FROM HERE?

Working with LLEs for localisation and growth in KwaZulu-Natal. *Detail on how research leads to sector-specific priorities for localisation and how research informs TIKZN decision making.*

05 REFERENCES

Supporting links and information.



UNPACKING SUCCESS DRIVERS TO SUPPORT LOCAL GROWTH

The core objective of this research is to obtain a detailed understanding of value chain dynamics and growth drivers within the automotive industry in order to reconfigure and quantify the value proposition for localisation and growth in the local market.



This report is designed to identify priority global trends, and the impact of these on the local sector. Trade and investment opportunities will be informed from the content of this global, regional and local analysis.

The approach taken has been to identify Large Lead Enterprises (LLEs) in the sector, through an objective process of analyzing growth and profitability. Through a deep dive into their operations and influencing global trends, key growth drivers were identified for application to the domestic automotive sector.

A PUBLIC-PRIVATE PARTNERSHIP

The Durban Automotive Cluster (DAC) has partnered with Trade and Investment KwaZulu-Natal (TIKZN) to undertake cutting edge market research to inform strategic decision-making and promote localisation and growth.



The Durban Automotive Cluster is a public-private partnership between the eThekweni Municipality and the chemicals industry in KwaZulu-Natal



Trade & Investment KwaZulu-Natal is a South African trade and inward investment promotion agency, established to promote the province of KwaZulu-Natal as an investment destination and to facilitate trade by assisting local companies' access international markets.



GLOBAL GROWTH DRIVERS

Global revenue of the most important 28 automotive manufacturers in 2019 was € 1,874.9 billion.

The following 4 firms were selected for in-depth profiling as examples of leading global automotive firms whose growth drivers should be emulated locally:

Volkswagen, BMW, Toyota, Tesla

SECTION OBJECTIVE

- Provide an overview of key sector and value chain dynamics at a global level
- Unpack and understand the key growth drivers of LLEs for the global automotive industry
- Model growth drivers for LLEs in order to provide a comprehensive overview of trends and opportunities for automotive industry

The automotive industry is clearly dominated by Asia. In 2019, the region accounted for around half of total vehicle production and sales. Europe accounted for around 23% of the totals, with North America producing just over 18%, and selling 23% of all vehicles.

The regional profile is also evident when considering the country data. China produces and sells almost 30% of the respective totals, with Japan and India also major players in Asia. The USA produced almost 11% of vehicles in 2019, while selling almost 20% of the global total.

As with revenue, Volkswagen and Toyota are the largest OEMs by volume, producing 10.8 and 10.7 Million vehicles respectively in 2019, with this representing almost a quarter of all vehicles produced.

Vehicle Production by Region

	2015	2016	2017	2018	2019
Asia-Oceania	47,989,273	51,846,421	53,395,211	52,656,826	49,266,873
Europe	21,167,017	21,486,270	21,634,302	22,262,540	21,312,082
North America	17,954,513	18,151,322	17,478,820	17,424,475	16,783,398
South America	3,007,626	2,670,348	3,235,210	3,423,143	3,319,361
Africa	836,421	903,568	1,003,259	1,102,036	1,105,147
Total	90,954,850	95,057,929	96,746,802	96,869,020	91,786,861

The Annual automotive world export level values improved through to 2018, followed by a decline in 2019 of 2.6%. By a substantial margin, Germany is the major exporter of vehicles by value (18.7% of the world total), followed by Japan (12.9% of total). The top 10 countries exporting cars comprise 74% of the total.

Vehicle Exports of Motor Cars (US Billions) – World & Top 10 Countries

Exporters	2015	2016	2017	2018	2019	2015-16	2016-17	2017-18	2018-19	CAGR	2015-19
World	680.67	705.12	751.98	779.71	759.62	3.59%	6.65%	3.69%	-2.58%	2.84%	11.60%
Germany	152.94	152.23	157.00	155.04	142.27	-0.47%	3.14%	-1.25%	-8.23%	-1.70%	-6.97%
Japan	86.05	91.99	93.37	99.12	98.04	6.91%	1.49%	6.17%	-1.09%	3.37%	13.94%
United States of America	55.39	53.84	53.56	51.41	56.16	-2.81%	-0.51%	-4.01%	9.24%	0.48%	1.39%
Mexico	32.84	31.42	41.69	49.41	49.69	-4.34%	32.69%	18.51%	0.57%	11.86%	51.29%
Canada	44.92	48.84	46.51	40.99	40.71	8.74%	-4.78%	-11.85%	-0.68%	-2.14%	-9.36%
Korea, Republic of	41.75	37.50	38.83	38.25	40.46	-10.19%	3.56%	-1.50%	5.78%	-0.59%	-3.10%
United Kingdom	38.95	40.79	42.00	42.04	38.57	4.71%	2.97%	0.11%	-8.25%	-0.12%	-0.97%
Belgium	27.74	30.62	32.95	34.11	38.00	10.39%	7.59%	3.53%	11.40%	8.23%	36.97%
Spain	33.20	35.72	34.32	35.71	34.36	7.60%	-3.93%	4.07%	-3.79%	0.99%	3.50%
Slovakia	13.84	15.53	16.56	22.06	23.63	12.16%	6.62%	33.23%	7.12%	14.78%	70.66%

As with exports, annual world import levels increased through to 2018, followed by a drop in 2019. The USA is the biggest importer of vehicles (23.2% of the world total), followed by Germany (9.1% of total) and China (6.1% of the total). The top 10 countries importing cars comprise two-thirds of the total.

Vehicle Imports of Motor Cars (US Billions) – World & Top 10 Countries

Importers	2015	2016	2017	2018	2019	2015-16	2016-17	2017-18	2018-19	CAGR	2015-19
World	685.48	712.40	761.59	787.68	775.24	3.93%	6.90%	3.43%	-1.58%	3.17%	13.10%
United States of America	169.18	173.29	179.60	178.52	179.52	2.43%	3.64%	-0.60%	0.56%	1.51%	6.11%
Germany	45.80	51.59	58.35	64.71	70.52	12.63%	13.11%	10.89%	8.99%	11.40%	53.97%
China	44.20	43.99	49.94	49.61	47.06	-0.47%	13.52%	-0.66%	-5.14%	1.81%	6.47%
United Kingdom	48.70	45.58	44.21	44.25	43.84	-6.39%	-3.02%	0.08%	-0.93%	-2.56%	-9.98%
Belgium	28.42	33.06	36.65	38.73	39.26	16.34%	10.86%	5.66%	1.37%	8.56%	38.14%
France	29.27	31.91	34.90	38.29	38.48	9.01%	9.38%	9.70%	0.49%	7.15%	31.45%
Italy	22.59	27.58	31.22	32.48	30.29	22.10%	13.18%	4.04%	-6.74%	8.15%	34.09%
Canada	26.33	26.41	28.61	29.94	28.41	0.30%	8.36%	4.62%	-5.09%	2.05%	7.91%
Spain	16.29	18.21	20.16	22.19	20.95	11.79%	10.70%	10.03%	-5.59%	6.73%	28.55%
Netherlands	11.38	12.58	12.74	14.01	16.56	10.61%	1.26%	9.97%	18.22%	10.01%	45.61%

SELECTION CRITERIA FOR LLES



Net sales growth history

Net sales represents the sales after the deduction of cash and trade discounts, returned sales, excise taxes, and allowances for which credit is given to customers. Net sales and the growth in net sales are indicators used to assess the prospects of a company.



Net income growth history

The company's total earnings, reflecting revenues adjusted for costs of doing business, depreciation, interest, taxes, and other expenses. This figure also includes gains on stakes in joint ventures. Net Income = Earnings after tax + Minority Interest + Other + Extraordinary Items after Tax + Preferred Dividends



InFront Analytics aggregated growth score

Growth indicators are first calculated in absolute value for the selected companies, as well as for all companies in the reference universe. For each indicator the absolute value is converted into a score from 0 to 10 based on the ranking of that indicator for the company vs the companies of the reference universe. A low score (below 5) is a sign of underperformance, while a high score (above 5) is a sign of outperformance.



EBIT Margin History

Earnings Before Interest and Taxes, also called Operating income. $EBIT = EBITDA + Depreciation \& Amortization + Unusual/Exceptional \text{ items}$. This is the figure for operating income after depreciation but before the debt service or what is owed to the government for taxes. It is commonly used way of measuring the profitability of a company.



ROCE History

ROCE is a measure of the returns a company makes from its Capital Employed. It indicates the efficiency of a company's capital investments and is useful to compare performance between businesses.



InFront Analytics aggregated profitability score

Profitability indicators are first calculated in absolute value for the selected companies, as well as for all companies in the reference universe. In a second phase, for each indicator the absolute value is converted into a score from 0 to 10 based on the ranking of that indicator for the company vs the companies of the reference universe. A low score (below 5) is a sign of underperformance, while a high score (above 5) is a sign of outperformance

Four firms were selected for in-depth profiling as examples of leading global automotive firms, based on the following parameters

Volkswagen (VW): VW is the largest global LLE in terms of sales and has displayed very strong new income growth and EBIT margin performance, with its aggregated growth and profitability scores also comparatively sound.

BMW: Overall, BMW's profitability profile, reflected in its EBIT margin history, ROCE history and aggregated profitability score, is the strongest of all the LLE analysed

Tesla: Tesla has achieved highly impressive growth, with this clearly highlighted in its exceptional new sales growth history figure

Toyota: Toyota is second to only VW for global sales and has been a consistently strong performer in recent years, although its growth has slowed down. It does however perform strongly in terms of EBIT margin history

VW is a Germany-based LLE, with sales of EUR 252.6 Billion in 2019 . Growth drivers include a strategic focus on electric vehicles and R&D, providing innovative mobility solutions and leveraging commonisation



CASE STUDIES IN GROWTH

1. From industrial cloud to hybrid and electric cars, efficient combustion engines, motorcycles, and many more technologies, Volkswagen invests heavily in R&D

The company invests a large sum every year in research and development. Research and development expenses of Volkswagen in 2018 grew to \$13.6 billion against \$13.14 billion in 2017.

In the wake of their emission scandal and the external market pressures Volkswagen introduced a new strategy plan that will focus on delivering key goals by 2025. The company's key objectives are:

- Introduce 30 new electric vehicles by 2025.
- Develop new competence in battery technology, digitalisation and autonomous driving.
- Increase research and development (R&D) spending to double-digit billion range.

EXAMPLE

- Three German, two Chinese and one US factory will be converted to EV production for the Volkswagen brand, with parallel investment and production at Audi, Skoda and Porsche.
- The company is planning to invest € 30 billion in electrical driving over the next five years. It also plans to expand its portfolio of electric cars to 30 models by 2025.
- Volkswagen's transformational strategy "Transform 2025" has the following phases:
 - The first phase (2016 – 2020): Develop new competencies – electric vehicles and e-mobility
 - The second phase (2020 – 2025): Become world's leading, profitable volume manufacturer of electric vehicles
 - The third phase (2025 onwards): the rapid expansion of electric vehicles

2. Combining ride hailing and electric vehicles for a "do-good" mobility solution for the consumer

The entry of ride hailing services represented the introduction of a new form of mobility for many consumers, sensitising them to the benefits of 'use' vs 'own' paradigms. This has provided an attractive alternative to traditional public transport for many, while simultaneously providing a lower cost alternative to vehicle ownership for others.

EXAMPLE

- Volkswagen has joined forces with Uber to launch an electric vehicle pilot through the Uber Green ride-hailing service in Berlin.
- Volkswagen has already been running the e-Golf successfully for its own car-sharing service WeShare since 2018 in the German capital. Cooperating with Uber is different though as the company provides ride-hailing, not car sharing. At the same time, Uber does not employ drivers but only facilitates booking with their global app. To drive for Uber means bringing your own car.

3. Leveraging commonisation: Synergy between brands is one of VW's key strengths

EXAMPLE

- Many of Volkswagen's brands, including Škoda, SEAT and Volkswagen, or Bugatti, Lamborghini and Porsche, share their R&D spending, build technology, access to different markets and customer knowledge to increase sales and decrease costs. At the same time, they are able to cater for different consumer groups.
- Synergy would not be possible between only a few brands.

KEY TAKE-AWAY:

1. First to market innovation as a key growth strategy as rate of change and technology adoption accelerates
2. Appreciation for **changing consumer product usage** and provision of solutions to meet changing needs opens up new avenues for growth
3. **Cross product / brand synergies** reduces costs and increases profitability

BMW is a German-based LLE. Its 2019 sales were EUR 104.2 Billion. Growth is being driven through the integration of physical product and product-enhancing services and a keen focus on EVs and hybrid-technology



CASE STUDIES IN GROWTH

1. BMW is an e-mobility pioneer, having delivered half a million electrified vehicles to customers worldwide

145,815 electrified BMW and MINI vehicles were sold worldwide in 2019 and The total number of electrified vehicles in the BMW Group line-up is 12.

EXAMPLE

- BMW plans to expand its range of electrified vehicles to 25 models by 2023 – with more than half of them fully electric
 - A quarter of the BMW Group vehicles sold in Europe are expected to be electrified by 2021; a third by 2025 and half by 2030
 - Built a competence centre for battery cells in Munich, with aim to double range of battery cells by 2030
 - BMW also has plans to launch models which run on alternative fuels like natural gas
 - This show that the company is making inroads to be prepared in the future where fuel might become a problem.

2. 'Brands and services' create the consumer mobility solution package

BMW has a strong focus on R&D for technological advancement and for the provision of technology service solutions for customers, which has made it a market leader in the premium segment for car sales

EXAMPLE

BMW refers to their consumer offering as "Brands and Services" and describes that everything within this bundle is designed to "enable moving moments" and "transform customers' dreams into reality today and in the future". **Now Services** are a key example of this and provide innovative solutions to customers, focused on their current and future mobility needs.

- **ShareNow** is a ridesharing solution that provides customers with "mobility on demand"
- **ReachNow** provides access to a broad portfolio of innovative mobility services
- **ParkNow** is a holistic parking solution that offers mobile parking and cashless payments both along roadsides and in car parks
- **ChargeNow** offers comprehensive services for charging EVs and is the world's fastest growing charging network
- **FreeNow** is a ridehailing solution that provides multiple mobility solutions including car rental, taxi eScooter and eBike etc

KEY TAKE-AWAY:

1. Electric vehicles and hybrid technology is a key growth area and the "race to number one" (leading provider of EVs) is underway between LLEs
2. Innovation in mobility solutions are changing owner-driver-user relationships and leading firms are embracing, piloting and launching projects to embrace this and capture new markets
3. Luxury, high-end market consumers most likely to embrace and value a proposition that integrates physical product and value-enhancing services

Tesla is the youngest of the LLEs considered. It is US-based and exclusively focused on EVs. The integration of products and services, electric vehicle innovation, leveraging commonisation is driving growth and the appeal of founder, Elon Musk, is driving growth..



CASE STUDIES IN GROWTH

1. An exclusive focus on EVs as e-mobility solutions rather than products. This e-mobility solution technology is leveraged across the various products produced by Tesla (including Models S, 3, X, Y, and Cybertruck)

Tesla's exclusive focus and unique offering is Electric Vehicles (EVs), and while the firm's financial returns have been mostly negative in recent years, it has grown its market share substantially to be the leading global EV producer, with its current market cap having increased and surpassing that of all of the other global LLEs by a substantial margin.

EXAMPLE

A big advantage that Tesla has is that are producing a car that creates no pollution, eliminates visits to gas stations, and is truly green – Other manufacturers are playing catch up in this regard. The company's focus is, and has been, on the development and innovation of technologies (e.g. batteries) for energy storage, digital and vehicles. Unlike other car manufacturers that see themselves as 'producing a car', Tesla's strategic view is that they are an e-mobility solution provider.

- Cost of ownership is significantly lower on a Tesla versus a traditional EV
- Tesla cars, by some estimates, have significantly fewer parts per vehicle - around 20 versus the 2,000 in EVs. This dramatically reduces the consumers total cost of ownership
- Tesla has also acquired battery manufacturing companies and will incorporate new kinds of battery-related technologies into its vehicles, which could further reduce cost of ownership
- Other vehicle aspects also require minimal maintenance, with Tesla updating its maintenance guidelines considerably

2. Tesla develops cars as if it were software and seamlessly integrates products and services into a value offering for the consumer

A Tesla car can be described as a software product that moves. This development process and focus enables Tesla to improve its cars' software functionality every few weeks. In sharp contrast to the traditional auto industry model where the product is the same for as long as you drive it.

EXAMPLES

- Over-the-air upgrades are an essential part of Tesla ownership and the long-term consumer experience. This allows owners to improve their car at the touch of a button and provides additional features and functionality to assist in the customisation of the car. Free and paid-for services are available from the Tesla Account or Tesla App, much like an Apple i-Store or Google Play Store for an Apply or Android phone respectively.
- Tesla Network is a Ridesharing App that allows Tesla owners to operate their car for ridesharing. Software upgrades will allow this to eventually become a driverless ridesharing solution.
- The purchasing process of a Tesla is also innovative and software solution driven – The firm sells directly to the consumer online. Purchasers go online, pick a model, select and add features, deposit and schedule a pickup and deliver location

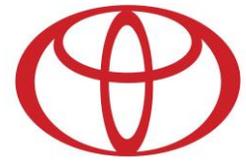
3. Love him or hate him, there is no denying that Elon Musk is crucial to Tesla's success

In the next 100 years, it is probable that people will speak of Henry Ford, Taiichi Ohno and Elon Musk in the same vein when referring to significant shifts in the automotive sector. Much of Tesla's growth is largely attributable to Musk's vision of the future for the automotive sector, and Tesla's role in it

KEY TAKE-AWAY:

1. Cost effective electric vehicles in demand as traditionally the cost of ownership was high
2. The 'i-Phonification' of the automotive industry is upon us, with consumer trained to appreciate customization, choice and service improvements over time. The traditional auto industry model of driving the same product with the same features is questioned

Toyota is a Japanese-based LLE, and the second largest vehicle firm in terms of sales and production. Strong corporate principles, internal processes and operating systems drive growth.



CASE STUDIES IN GROWTH

Despite significant worldwide investment, it remains highly dependent on its home market for volume sales and profits. Toyota operates 97 facilities around the world, with 66 located in the east. 43% of its sales are from Japan, 14% from other Asian countries, and 28% from Europe.

1. Toyota set the standard for the automotive industry when it came to advanced operating systems and functional strategies

This is from its widely practiced management system to its lean manufacturing philosophy, including Total Quality Management (TQM), Kaizen, and Kanban, which have all been proven to improve operations and performance

- This has resulted in Toyota being synonymous with quality and reliability
- Toyota has set examples for the fellow companies and sectors

Toyota adheres to five main principles which are embedded in everyday functioning and management:

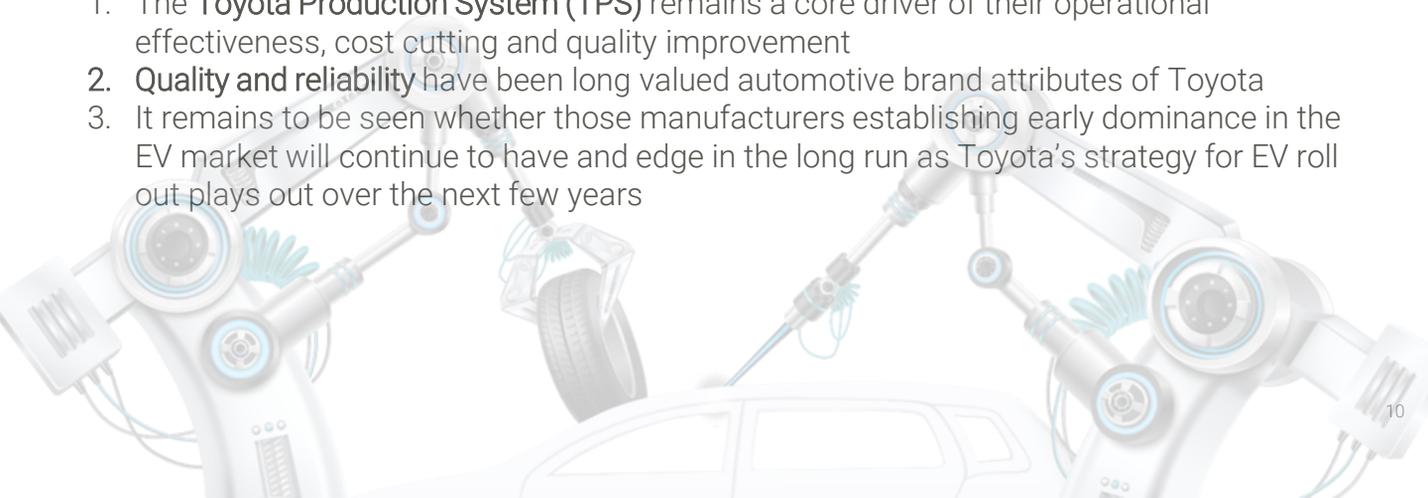
- Always be faithful to your duties, thereby contributing to the company and to the overall good.
- Always be studious and creative, striving to stay ahead of the times.
- Always be practical and avoid frivolousness.
- Always strive to build a homelike atmosphere at work that is warm and friendly.
- Always have respect for spiritual matters, and remember to be grateful at all times.

2. Toyota took the lead in hybrid technologies for the consumer market (Prius), which should be a major plus, however it is meeting stiff competition from other LLEs investing heavily in new technology.

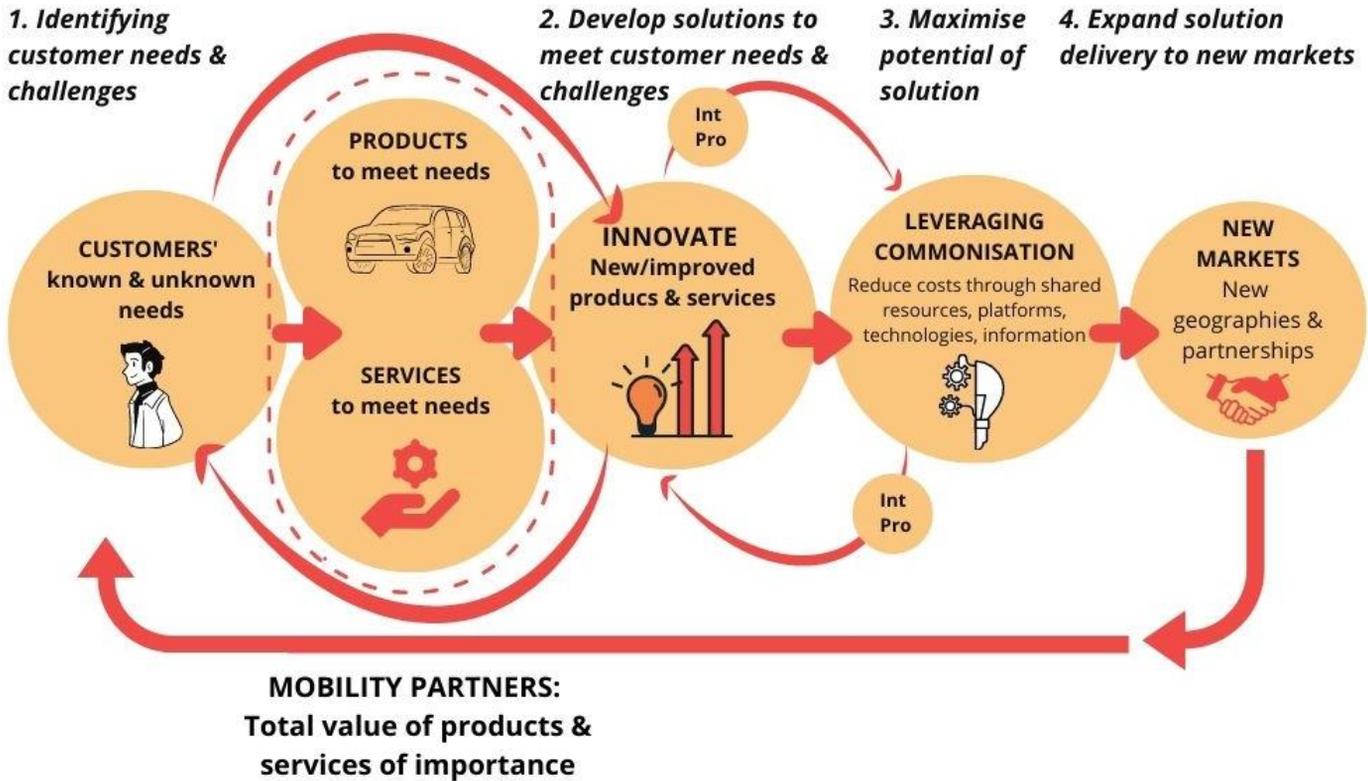
- Toyota does have an EV and product and service integration strategy which is now highlighting significant investment plans in the area of electric and hybrid technology – **CASE (Connected, autonomous, share and electric)**. Toyota aims to redesign itself from a primarily manufacturing-based company into a mobility company that provides a full spectrum of services related to mobility through honing its competitiveness as a car-making company while seeking partners who share their aspirations to advance innovative new initiatives.
- Toyota aims to have more than 5.5 million electrified vehicles sales by 2030 and for all models to have an electrified version by 2025.

KEY TAKE-AWAY:

1. The Toyota Production System (TPS) remains a core driver of their operational effectiveness, cost cutting and quality improvement
2. **Quality and reliability** have been long valued automotive brand attributes of Toyota
3. It remains to be seen whether those manufacturers establishing early dominance in the EV market will continue to have an edge in the long run as Toyota's strategy for EV roll out plays out over the next few years



An increased focus on creating mobility (and especially e-mobility) solutions through the bundling of products and services that meet rapidly changing consumer needs



KEY GROWTH DRIVERS FOR THE AUTOMOTIVE INDUSTRY



Value proposition increasingly reflects integration of physical product and product enhancing services.



Innovation in (e-)mobility solutions directed at changing owner-driver-user relationships (notably focused on own vs use, and drive vs ride)



Cost effective portfolio diversification enabled by shared core technologies, processes and systems / modules

Traditional “what you buy is what you get” models of vehicle ownership are questioned as paid and free applications increase product customisation

Ironically, this form of customisation supports LLEs to leverage commonisation across brands and products as consumers can still customise their mobility experience through services



SOUTH AFRICAN CONTEXT

Automotive vehicles have been built in South African since the 1920s. The automotive sector is considered crucial to the local economy, contributing 6.4% to GDP, 27.6% towards manufacturing output, and 15.5% of total exports in 2019. The total value of 2019 automotive exports was over R200 billion. The sector is also the dominant producer in Africa, accounting for 57.2% of total vehicle production.

SECTION OBJECTIVE

Provide an understanding of the South African automotive industry, and key policy and regulatory considerations, in order to inform how global lessons can inform approach to localisation

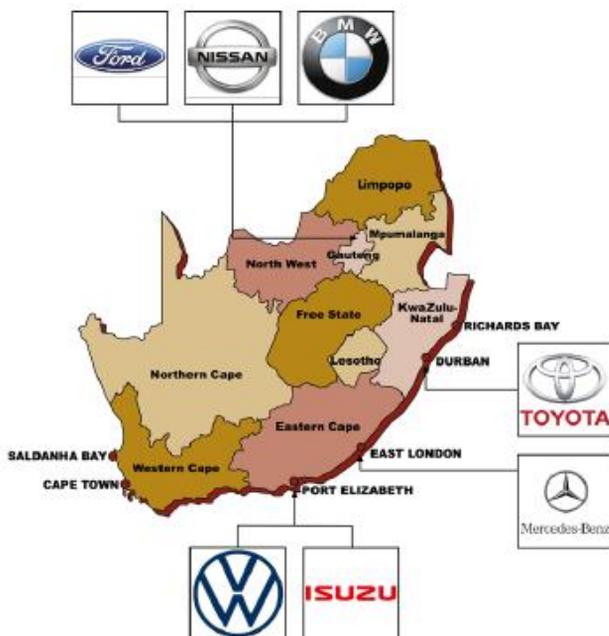
OEMs in South Africa

The country has seven major light vehicle OEM manufacturers, assembling a select range of passenger cars (PCs) and light commercial vehicles (LCVs). BMW, Ford and Nissan are located in the Gauteng, Volkswagen, Isuzu and Mercedes-Benz in the Eastern Cape and Toyota in KwaZulu-Natal. There are also several medium, heavy and extra-heavy commercial vehicles (M&HCVs) and bus companies present in South Africa. Vehicle production is concentrated in the Gauteng, the Eastern Cape and KwaZulu-Natal. The country also has two vehicle engine plants, both in the Eastern Cape, for Volkswagen (Uitenhage) and Ford (Port Elizabeth).

SA Major South African Light Vehicle OEM Manufacturers

OEM	Location	Segment	Models
BMW	Rosslyn, Gauteng	PC	X3
Ford	Silverton, Gauteng	PC	Everest
Mercedes-Benz	East London, Eastern Cape	PC	C-Class 4-door
Toyota	Durban, KwaZulu-Natal	PC	Corolla 4-door (new) Corolla 4-door (previous series, designated Quest) Fortuner
Volkswagen	Uitenhage, Eastern Cape	PC	Polo (new) Polo (previous series, designated Vivo)
Ford	Silverton, Gauteng	LCV	Ranger
Isuzu Motors	Port Elizabeth, Eastern Cape	LCV	KB D-Max
Nissan	Rosslyn, Gauteng	LCV	NP200 NP300 Hardbody
Toyota	Durban, KwaZulu-Natal	LCV	Hilux Quantum HiAce

SA Major South African Light Vehicle OEM Manufacturers Locations



SA Major Medium, Heavy and Extra-Heavy Commercial Vehicle and Bus companies

M&HCV Companies		Bus Companies
Babcock	MAN	Isuzu Motors
Bell	Mercedes-Benz SA	SA
Equipment	(Freightliner and Fuso)	Iveco
Eicher Trucks	Peugeot	MAN
FAW Trucks	Citroen SA	MarcoPolo
Fiat Chrysler Automobiles SA	Powerstar SA	Mercedes-Benz
Ford Motor Company	Scania	Scania
Hyundai Automotive SA	Tata Trucks	Tata
Isuzu Motors SA	Toyota (Hino)	Volvo Group
Iveco	Volkswagen Group SA	Southern Africa
JMC	Volvo Group Southern Africa	

The automotive supplier industry is also predominant in the regions of the Gauteng, Eastern Cape and KwaZulu-Natal, with an estimate 200, 150 and 80 core suppliers located in each region respectively

The Gauteng region accounts for 35.5% of total vehicle sales, with KwaZulu-Natal and the Western Cape the next two largest regions at 12.7% and 10.3% respectively. All the other regions are less than 5%. The sale of rental units makes up 12.6% of the total.

SA Automotive Production Breakdown by Region

	Gauteng	KwaZulu-Natal	Eastern Cape
Number of automotive component companies	200	80	150
Light vehicle production	33.2%	23.1%	43.7%
Light vehicle exports	36.5%	13.7%	49.8%

Total light vehicle production accounts for just over 95% of all the vehicles assembled in South Africa, with total vehicle production reaching 632,983 in 2019, the highest level over the last decade. Total production of PCs was 348,665 in 2019, and LCV production 254,450. Total vehicle exports were 387,125, with this comprising the export of 260,057 and 125,112 PCs and LCVs respectively in 2019.

SA Automotive Production and Exports

	2015	2016	2017	2018	2019
CARS					
Domestically Produced	340,349	336,458	330,575	320,383	348,665
Exports (CBU)	228,459	237,715	230,047	220,889	260,057
LIGHT COMMERCIALS					
Domestically Produced	243,534	235,333	242,300	261,086	254,450
Exports	102,664	104,987	105,862	128,005	125,112
TOTAL EXPORTS	333,845	344,816	338,095	351,139	387,125
TOTAL PRODUCTION	615,444	599,812	600,138	610,060	631,983

South Africa's automotive industry's growth trajectory is supported by an overarching and comprehensive industry strategy – the South African Automotive Masterplan (SAAM) – which sets ambitious growth targets, commitments from industry and government, and a structure to oversee implementation.



There are six major SAAM objectives focused on production, local content, employment, competitiveness, transformation, and deepening value addition.

Objective	Estimated impact on SA auto industry
1. Grow SA vehicle production to 1% of global output	<ul style="list-style-type: none"> Completely Built Up (CBU) production to 1.39 million units annually (129% higher than 2015 levels) Increase of value of vehicle production to R314 billion
2. Increase local content in SA assembled vehicles to up to 60%	<ul style="list-style-type: none"> Increase of R135.4 billion on 2015 local content levels Local content increase of 21.3% per vehicle produced (55% increase) Increase automotive component aftermarket and export production by at the same pace as local content growth
3. Double employment in the auto value chain	<ul style="list-style-type: none"> Employment growth of 112,000 Aggregate employment from 112,000 to 124,000
4. Improve auto industry competitive levels to that of leading international competitors	<ul style="list-style-type: none"> Sustainable automotive industry based on comparative price and non-price competitiveness versus leading international competitiveness Sustained export competitiveness
5. Transformation of the South African automotive value chain	<ul style="list-style-type: none"> 25% Black-owned involvement at Tier 2 and Tier 3 component manufacturer levels, as well as in dealership networks and authorised repair facilities Amplified skills development of Black South Africans Enhanced employment equity at senior management, artisan and professional employment levels across automotive value chain
6. Deepen value addition within SA auto value chains	<ul style="list-style-type: none"> Growth in R&D and other innovation

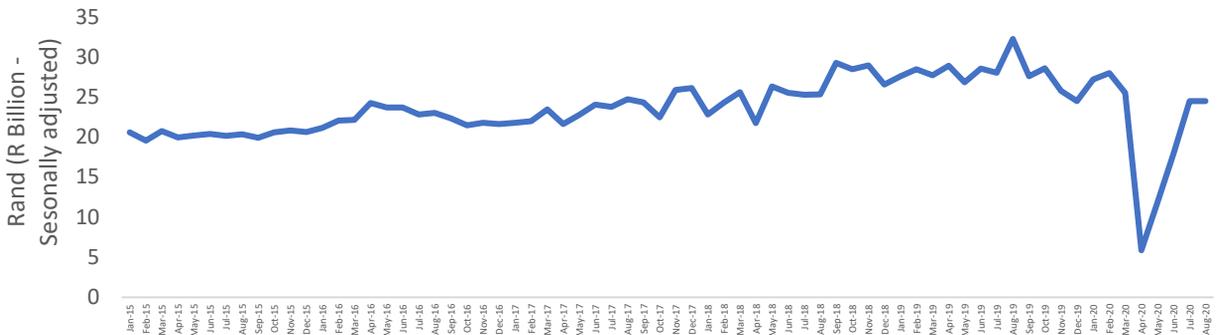
The current South African automotive policy is the Automotive Production and Development Programme (APDP). The APDP commenced in 2013, replacing the Motor Industry Development Programme (MIDP). **The APDP, in its current form, will run until the end of 2020, and will be replaced by an amended APDP programme in 2021. A BEE score of Level 4 will be required to access benefits in amendments.**

Element	APDP to 2020	Amendments 2021-2035*
Tariffs	Import duties on vehicles of 25% and components 20% Imported vehicles from the EU pay 18% duty	No change to CBU and Completely Knocked Down (CKD) tariffs Subject to engagement with EU, align CBU duties from EU-SA EPA
Assembly Allowance	Volume Assembly Allowance (VAA) From 2016 VAA calculated on a sliding scale based on total company production, commencing at 10% for 10,000 units to 18% at 50,000 annually. Vehicle assemblers - allowance multiplied by the component duty rate, so 3.6% at the maximum VAA based on all compliant local production so that exported vehicles, which pay no duty on imported parts, still get the full VAA	Volume Assembly Localisation Allowance (VALA) VALA based on local value addition and not manufacturing sales value VALA set at 35% of local value add for OEM volumes above 10,000 units annually from 2026. Transition set at 40% in 2021 and reducing annually
Production Incentive (PI)	From 2013 starting at 55% reducing by 1% annually to 50% of value added (51% in 2017) Duty-free import credits PI on catalytic converters remains frozen at 65% Incentive calculated through the supply chain and earned by the end producer (vehicle assembler) or the component manufacturer in the case of component exports and aftermarket sales Equivalent value of the PI is the incentive multiplied by the component duty rate of 20%, so 11% of normal value added in 2013, reducing to 10% by 2018	No change to CBU and CKD tariffs Production Incentive benefit to increase 25% for components (from 10% to 12.5% of value addition) Duty Credits to replace Production Rebate Credit Certificates PRCCs: to ensure components earn one benefit value tied to local value addition All production segments to have the same benefits
Automotive Investment Scheme (AIS)	A cash grant for qualifying capital investment, starting at 25% for component manufacturers and 20% for OEMs Ability to increase this by a further 5 or 10% dependent on adherence to certain economic benefit criteria Separate AIS available to manufacturers of people carriers (P-AIS)	Maintain cash grant for investment, but reduce by 5% if not South African tooling/machinery

COVID-19 KNOCKED THE SOUTH AFRICAN ECONOMY AND SIGNIFICANTLY IMPACTED THE AUTO INDUSTRY

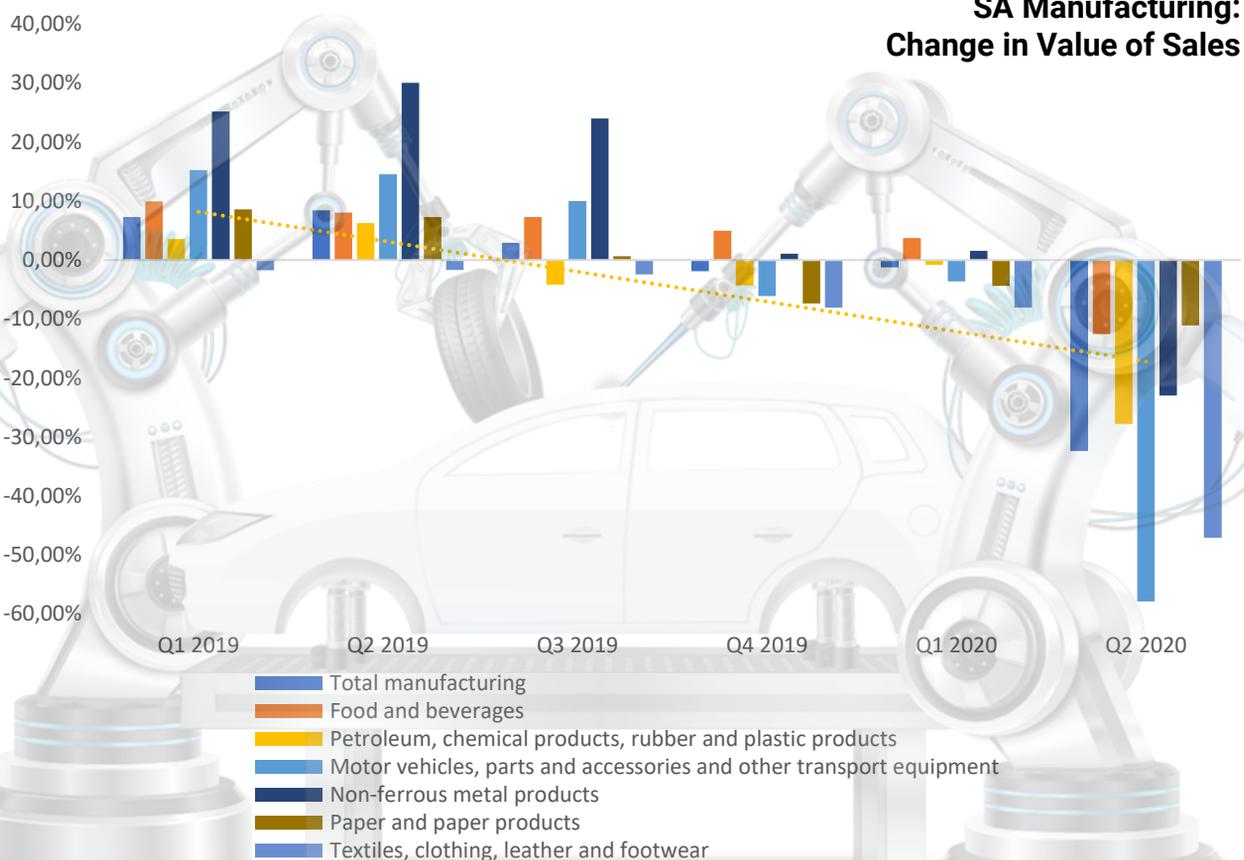
The automotive industry, was severely impacts by the COVID-19 pandemic. Value of sales dropped from R 25.5 billion in March 2020, to only R 5.8 billion in April. Levels improved in May and June to 11.7 billion and 17.9 billion respectively, with July and August levels both at R 24.5 billion. While the recent levels are somewhat encouraging, it is too early to predict if the industry has recovered.

Value of SA automotive sales



The automotive sector was massively impacted in Q2 2020. The total manufacturing YoY level is down by 37.4%, with **automotive down by 57.9%**. This is the highest of the major manufacturing sectors considered, followed by furniture and other manufacturing division, which was down by 56.7%, and then textiles, clothing, leather and footwear, which was down by 47.1%.

SA Manufacturing: Change in Value of Sales



LONG-TERM IMPACT AND OUTLOOK REMAINS UNCERTAIN

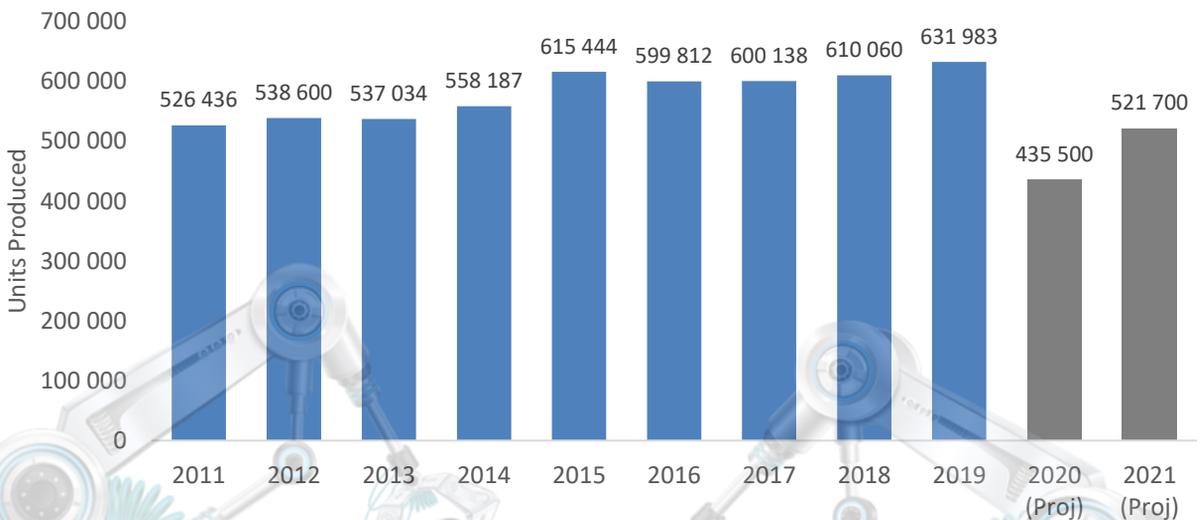
The massive impact of the pandemic on the automotive sector is further illustrated when reviewing the total local vehicle production data. Vehicle production dropped from 44,192 in March 2020, to only 1,260 in April. It increased to 16,837 in May, and then to 33,771 in June 2020. After hovering around 40,000 units in July and August, 45,592 vehicles were produced in September.

SA Vehicle Production



While total production for 2021 is projected to improve by almost 100,000 units, the total of 521,700 is below the lowest level over the last decade of 526,436, recorded in 2011, further highlighting the massive impact of the COVID-19 pandemic.

SA Vehicle Production



IMPLICATIONS OF GROWTH DRIVERS AND TRENDS ON DOMESTIC OEM SALES



Value proposition increasingly reflects integration of physical product and product enhancing services.

Two likely scenarios emerge for the physical manufactured product:

'Consumers expect more' - A total value proposition of integrated products and services becomes expected by the market within similar price parameters to the 'physical product only offering', placing greater pressure on the manufacturing cost of the physical product.

'Consumers love the package' - The total value proposition of integrated products and services vehicle results in the market perceiving an increase in total value, potentially reducing the relative importance of the manufacturing cost of the physical product.



Innovation in (e-)mobility solutions directed at changing owner-driver-user relationships

The entry of ride hailing services into South Africa represented the introduction of a new form of mobility for many consumers, sensitising them to the benefits of 'use' vs 'own' paradigms. This has provided an attractive alternative to traditional public transport for many, while simultaneously providing a lower cost alternative to vehicle ownership for others.

Autonomous driving advancements constrain progress towards a true driverless paradigm and are typically confined to more expensive vehicles. However, while these technologies evolve and become more affordable, existing ride hailing are likely sensitising many to the merits of the 'ride' paradigm relative to the 'drive' paradigm.



Cost effective portfolio diversification enabled by shared core technologies, processes and systems

Diverse offerings required and expected. Domestic market not expected to deviate from this.

Consumers continue to appreciate greater customisation opportunities, especially in upper LSM brackets. Services provide and opportunity to service this.

Make vs buy decisions to remain front of mind.

Make challenged by pre-existing globalisation pressures together with cross-model shared production (commoditisation)



KWAZULU-NATAL CONTEXT

KwaZulu-Natal is home to Toyota South Africa Motors. The region has approximately 124 component suppliers. The region's component suppliers range across various tiers and subsectors. The major subsectors include components, electronics, foundry, harnesses, JIT assembly, metal fabrication, metal forming, plastic moulding, precision machining and trim.

OBJECTIVE

Provide an understanding of the KwaZulu-Natal automotive industry and current sector performance, in order to inform how global lessons can inform approach to localisation

Overview of the KZN Automotive Industry

The province is home to one light vehicle OEM, Toyota South Africa Motors. It also has two Yellow Metal manufacturers, namely, Bell Equipment and Desmond Equipment. Major automotive components manufacturers based in the province include Sumitomo Tyres, Smiths Manufacturing, MAHLE Behr, G.U.D. Holdings, Hesto Harnesses, Toyota Tsusho and Toyota Boshoku.

The South African vehicle production in 2018 was 606,000 units, KwaZulu-Natal accounted for approximately 24% of this, i.e. **147,000 units**. 52,000 units were exported, and the balance was sold in South Africa. The automotive sector is a major contributor to employment in manufacturing in SA as well as in the province. KZN automotive manufacturing sector accounted for an estimated **28,722 jobs** in 2018 with Stats SA estimating that the automotive sales, repairs and maintenance sector in KwaZulu-Natal employs **50,000 people**.

As part of research for the KZN Automotive Strategy, a SWOT analysis of the KZN automotive industry was completed. The results from the analysis indicated that there are many strengths and opportunities that the sector can leverage on but there is still some weaknesses and threats that the industry together with the public sector are required to partner on to improve the KZN automotive industry.

A notable strength includes the location of the province and access to multimodal logistics. A major weakness and threat is the infrastructure in the province.

KZN Automotive Industry SWOT

Strengths	Weaknesses
<ul style="list-style-type: none"> Logistics: close to port access for imports and exports and N3 route to JHB Toyota South African Motors presence in KwaZulu-Natal, as the largest OEM in the country Established supply base with multinational relationships Metal pressing capabilities in the province Aluminium supply in the province Availability of semi-skilled labour 	<ul style="list-style-type: none"> Mismatch of technical sector skills in KwaZulu-Natal (engineering, technical and artisan) Poor service delivery (water cuts, electricity disruptions, poor road infrastructure) The domestic market for vehicle demand weak over the past decade High port and rail costs and unreliable service Poor supplier competitiveness Essentially only one passenger and LCV vehicle OEM in the province eThekweni has distinctly high industrial land rates
Opportunities	Threats
<ul style="list-style-type: none"> Establishment of the Auto Supply Park Widening localisation through Toyota South African Motors and other OEMs APDP extension and incentives linked to local content Sub-Saharan African Trade Agreement Deepening localisation through supply markets outside of KwaZulu-Natal but within South Africa Continually weakening currency increases localisation competitiveness 	<ul style="list-style-type: none"> B-BBEE compliance (costs involved, difficulty of changing ownership) Import competition, especially from Asian competitors Electricity disruptions Increasing sophistication of parts and processes High capital expenditure cost due to exchange rate weakening Raw material availability

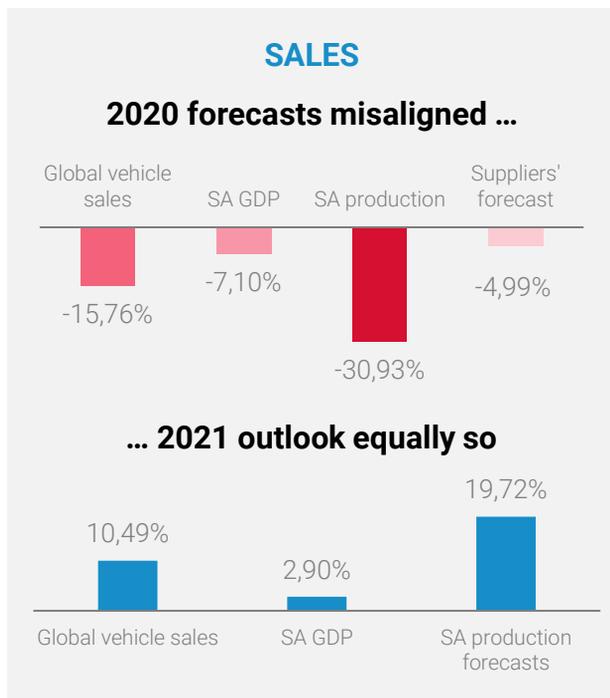
CURRENT INDUSTRY STATUS QUO: THE SECTOR IS GRAPPLING WITH THE CHALLENGES OF COVID-19, PLACING INCREASED UNCERTAINTY ON INVESTMENT AND LONG-TERM GROWTH AND DEVELOPMENT PLANS

The DAC undertook a COVID-19 Manufacturing Impact Survey in 2020. The survey was intended to provide input on the extent to which the COVID-19 pandemic has, is and will impact the local industry, as well as how industry is seeking to mitigate the associated risks.

During the period of July and August 2020, 101 manufacturers across South Africa were surveyed to understand the impact of COVID-19 on business sustainability, 41% of responses were from the automotive industry.

OVERESTIMATED RECOVERY CAN LEAD TO RISKY DECISION-MAKING

Profitability lagging sales as suppliers enter recovery phase



Recovery overestimated?

Average YOY forecasts for suppliers are not supported by global and national outlook

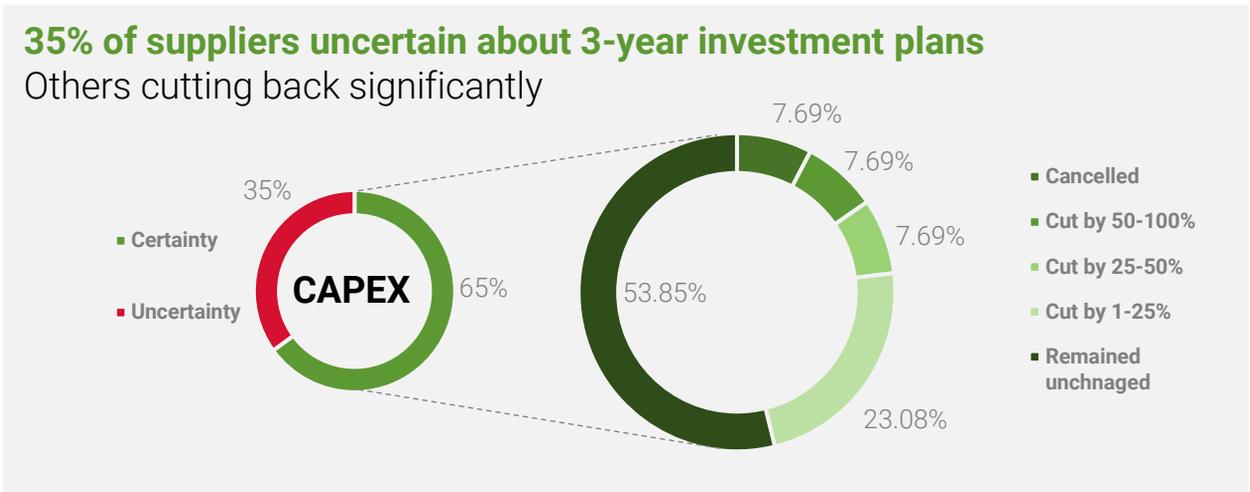
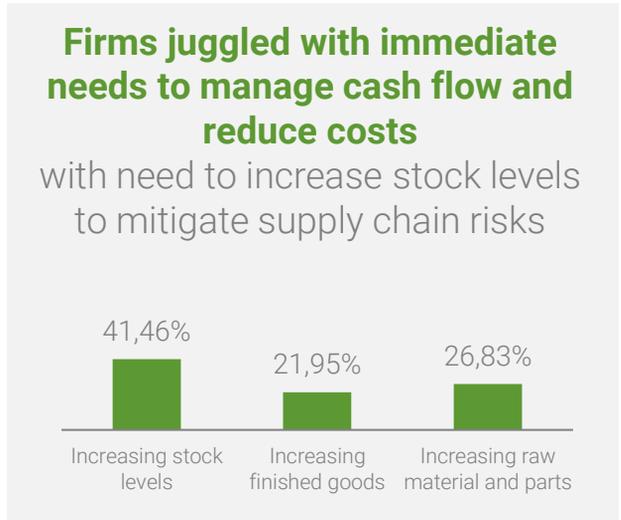
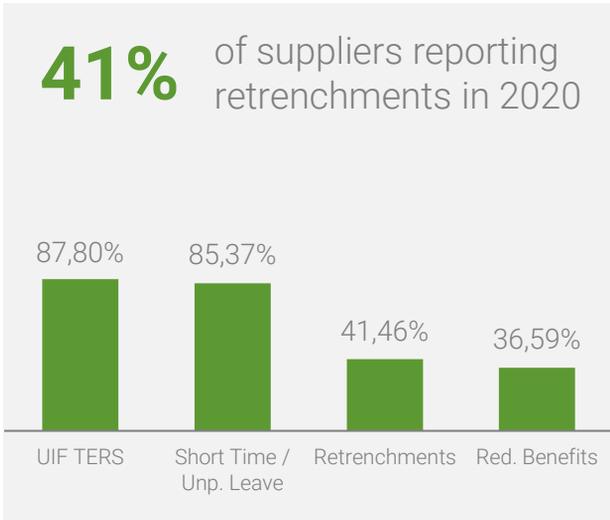
2021 forecasts show OEM production levels significantly higher than global car sales projections and GDP forecasts

Short term survival strategies combined with tanking sales placed pressure on profitability

Recovery likely to lag sales due to inventory investment, loans, deferred payments and cash flow pressures during lockdown

FIRMS RESPONDED QUICKLY TO SURVIVE THE CRISIS BUT AT A FUTURE COST

Response through short-term cuts and 3-year investment cycle revisions



WHAT NEEDS TO BE DONE?



Sales & Demand

Together with reviewing their own sales outlook, firms should critically assess their suppliers and supply chain risk to ascertain which suppliers are most at risk and work through operations and investment concerns to ensure alignment with their own recovery plans.



Financial Stability

Careful cash flow management is immediately required, especially considering potential 'second wave' disruptions to supply chain. Recovery and growth of the industry requires suppliers to invest in and realise new market opportunities. However, greater transparency and insight into new opportunities is required in order to accurately justify investment.

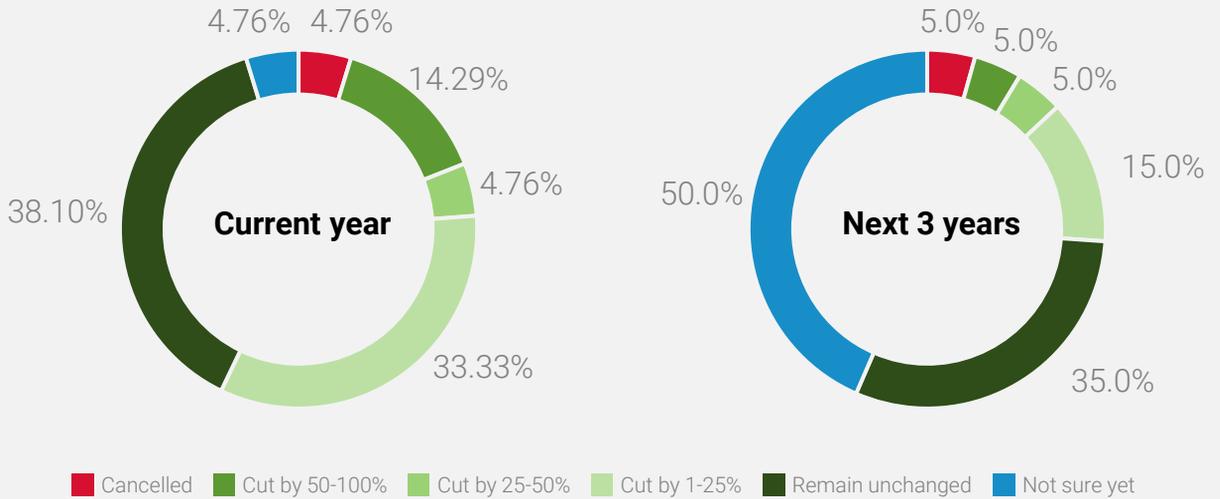


Operations & Supply Chain Strategies

Cost effective internal reskilling and multiskilling required to ensure that firms address the internal capacity and skills challenges relating to downscaling.

Localisation as a supply chain risk mitigation strategy provides opportunity to rethink value proposition and drive lower tier localisation

Investment Outlook (% of firms)



Suppliers reacted quickly to address immediate financial and lockdown crisis

Firms reduced operating expenditure, negotiated with suppliers and customers, but simultaneously had to increase stock holding, raw material and parts inventory and finished goods, incurring additional costs and impacting immediate term cash flow

Immediate and longer-term investment budgets cut to support cash flow crisis

46% of suppliers have made decisions to cancel or cut their 3-year investment plans

NEW MARKET AND LOCALISATION OPPORTUNITIES KEY TO SUPPORT RECOVERY AND SUPPLIER SUSTAINABILITY

KEY TAKEAWAY



Contrasting strategies deployed to address lockdown and cashflow crises

Supplier profit levels are expected to remain under pressure in 2020. Suppliers were faced with the contradictory challenge of addressing a cash flow crisis (requiring reduced operational expenditure) and a lockdown crisis necessitating investment in stockholding. 46% of suppliers have cancelled or cut their 3-year capex budgets to accommodate for and survive the immediate crisis.

WHAT DOES THIS MEAN?



Improvements in profitability will lag sales

Improvements in profitability and cash flow will remain under pressure and will lag any rebound or improvement in sales. Investment, without intervention or support, is likely to remain below what is needed to realise localisation opportunities.

WHAT NEEDS TO BE DONE?



Support investment through transparency into market opportunities

Careful cash flow management is immediately required, especially considering potential 'second wave' disruptions to supply chain. Recovery and growth of the industry requires suppliers to invest in and realise new market opportunities. However, greater transparency and insight into new opportunities is required in order to accurately justify investment.



WHERE TO FROM HERE?

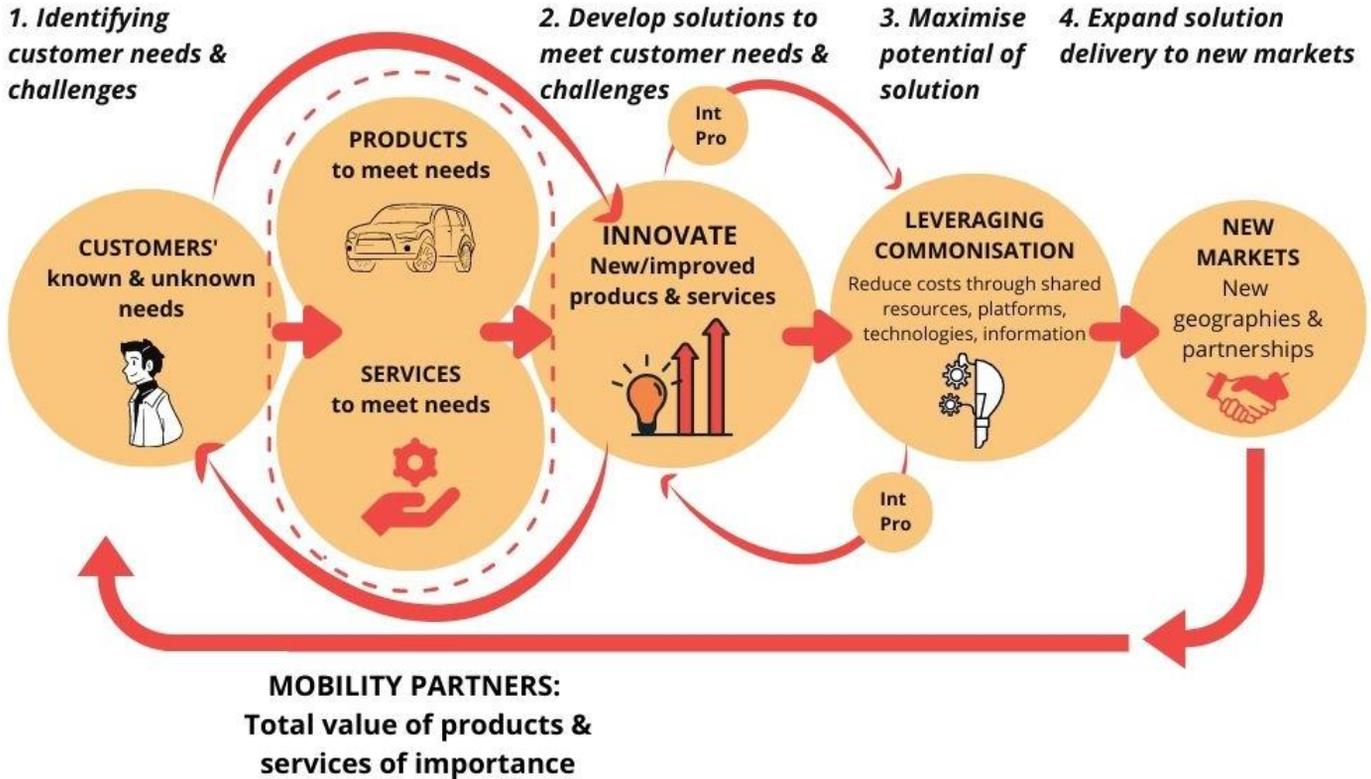
Key to unlocking growth in the local industry is working with large lead enterprises to realise new avenues for sustainable growth with positive knock on implications for local suppliers. .

SECTION OBJECTIVE

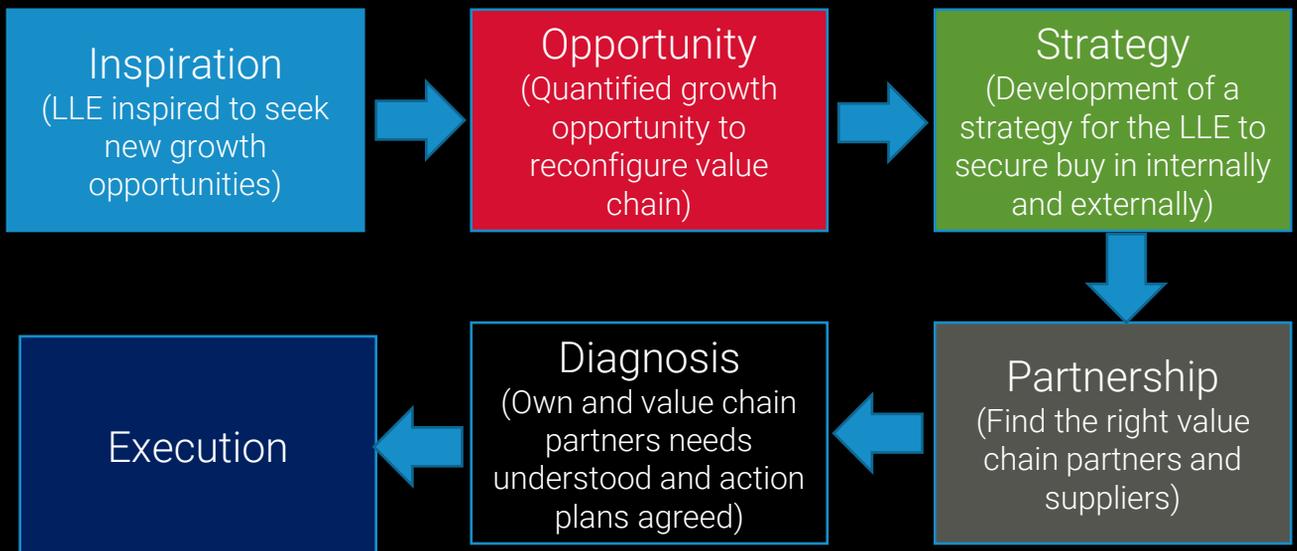
Presentation of next steps stemming from research and the implications of how these findings can support localisation

WHAT NEEDS TO BE DONE TO DRIVE AUTOMOTIVE INDUSTRY GROWTH? LLEs DEVELOPING AS MOBILITY PARTNERS

Innovative solutions that bundle products and product enhancing services together to provide an attractive mobility solution for the customer

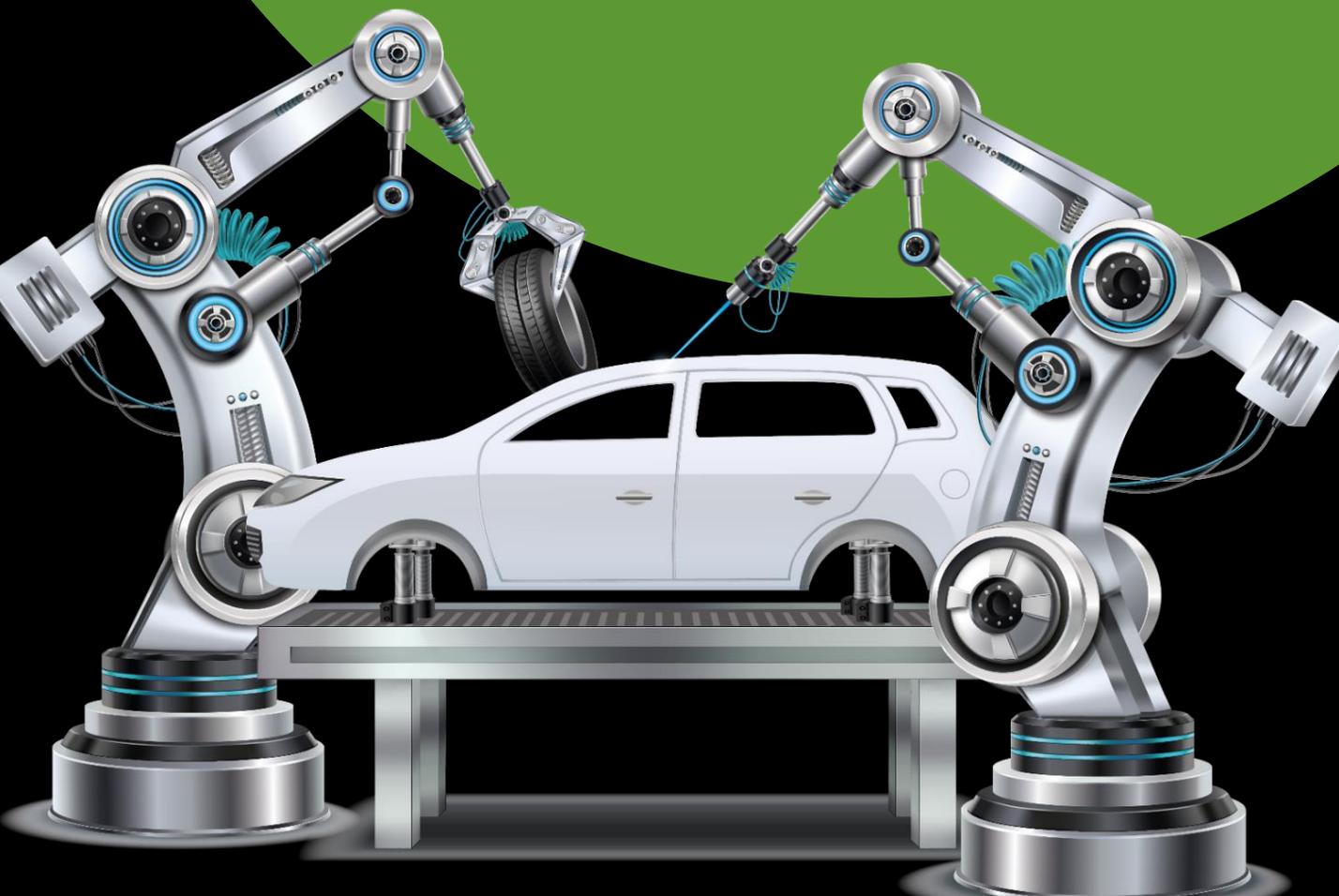


NEXT STEPS





REFERENCES



REFERENCES

- AIEC (2020), Automotive Export Manual 2020 -Progress on Wheels
- AutoStats (2020), Statistical Information for the Automotive Industry (<https://new.autostats.co.za/>)
- B&M Analysts (2019), Research Towards the KZN Automotive Strategy
- B&M Analysts (2020), The structural impact of COVID-19 on the South African Automotive Supplier Industry - WHAT NOW AND WHAT NEXT? (<https://bmanalysts.sharepoint.com/sites/dbnautocluster>)
- Cefic (2019), A journey into the Future of Europe with the European Chemical Industry (<https://bit.ly/301dOQF>)
- Consultancy.uk (2020), 12 macro-economic trends creating post-covid's new normal (<https://bit.ly/3cjDjlf>)
- Deloitte (2020), 2020 Global Automotive Consumer Study - Is consumer interest in advanced automotive technologies on the move? (<https://www2.deloitte.com/content/dam/Deloitte/us/Documents/manufacturing/us-2020-global-automotive-consumer-study-global-focus-countries.pdf>)
- Diligent Insights (2019), Top Legal Issues Facing the Automotive Industry (<https://insights.diligent.com/legal-compliance/top-legal-issues-facing-automotive-industry>)
- Dispatch Live (2020), Motor industry seeks to delay new government plan (<https://www.dispatchlive.co.za/business/2020-05-22-motor-industry-seeks-to-delay-new-government-plan>)
- Driving (2019), These are the top 10 automotive manufacturers in the world (<https://driving.ca/volkswagen/features/feature-story/these-are-the-top-10-automotive-manufacturers-in-the-world>)
- Foley & Lardner LLP (2019), Top Legal Issues Facing the Automotive Industry in 2019 (<https://www.jdsupra.com/legalnews/top-legal-issues-facing-the-automotive-56113/>)
- Foley & Lardner LLP (2020), Top Legal Issues Facing the Automotive Industry in 2020 (<https://www.foley.com/en/insights/publications/2020/02/top-legal-issues-facing-automotive-industry-2020>)
- Industry Today (2020), Consumer Trends for the Automotive Industry 2020 (<https://industrytoday.com/consumer-trends-for-the-automotive-industry-2020/#:~:text=Affordability%2C>)
- InFront Analytics (2020), GPRV Analysis (<https://bit.ly/2FGPLj9>)
- International Organization of Motor Vehicle Manufacturers (OICA) (2020), Production Statistics (<https://www.oica.net/>)
- International Trade Centre (2020), Trade Map – International Trade Statistics (<https://www.trademap.org/>)
- Just-Auto (2020), Components Forecast (<https://www.just-auto.com/>)
- Just-Auto (2020), OEM Quick facts (<https://www.just-auto.com/>)
- NAACAM (2019), APDP and the SA Automotive Masterplan (<https://naacam.org.za/wp-content/uploads/pdf/page18.pdf>)
- NAAMSA (2020), Industry Vehicle Sales, Production, Export and Import Data (<https://naamsa.net/>)
- PricewaterhouseCoopers (2018), Five trends transforming the Automotive Industry (<https://www.pwc.com/gx/en/industries/automotive/publications/eascy.html>)
- Stas South Africa (2020), Motor vehicles, parts and accessories and other transport equipment – Value of Sales (<http://www.statssa.gov.za>)
- The South African Department of Trade and Industry (2018), Geared for Growth – South Africa’s automotive industry masterplan to 2035 (http://www.thedtic.gov.za/wp-content/uploads/SA_Auto_Masterplan.pdf)
- Wheels Joint (2020), 2019 financial report of 28 mainstream auto companies in the world: total profit decreased by 11% year-on-year, Ethe Vega (<https://www.wheelsjoint.com/2019-financial-report-of-28-mainstream-auto-companies-in-the-world-total-profit-decreased-by-11-year-on-year/>)
- World Economic Forum (2019), 5 trends in the global economy – and their implications for economic policymakers (<https://bit.ly/3kGuPHY>)