LSF Research

Prepared by Ernst and Young Advisory Services (Pty) Ltd

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Localisation Opportunities for Automotive Aftermarket Components in South Africa

LSF
PROUDLY SUPPORTING LOCAL INDUSTRY



ABOUT THIS STUDY

This study provides a comprehensive analysis of South Africa's automotive components landscape, with a focus on identifying the most feasible and sensible automotive components for localisation, with a particular focus on the aftermarket (i.e. components that are included into or onto a vehicle post on-line fitment).

As far as can be ascertained, this study represents one of the first comprehensive assessments of the aftermarket's size and opportunity within the South African context, drawing on a combination of verifiable data and stakeholder insights.

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Abbreviations

Acronym	Expansion
AAAM	African Association of Automotive Manufacturers
ABS	Anti-Lock Braking System
ADAS	Advanced Driver Assistance Systems
AfCFTA	African Continental Free Trade Area
AGM	Absorbent Glass Mat
AITF	Automotive Industry Transformation Fund
APDP	Automotive Production and Development Programme
APQP	Advanced Product Quality Planning
ARSO	African Organisation for Standardisation
AV	Aftermarket Value (from AV_i formula)
B-BBEE	Broad-Based Black Economic Empowerment
CAGR	Compound Annual Growth Rate
CBU	Completely Built Up
CCA	Cold Cranking Amps (battery rating)
CKD	Completely Knocked Down
CLF	Critical Location Factors
DC	Distribution Centre
DI/D/DBK	Drawback Items (various duty-drawback provisions under the Customs & Excise Act)
DSI	Department of Science and Innovation (South Africa)
DTIC	Department of Trade, Industry and Competition
ECE	United Nations Economic Commission for Europe
EFB	Enhanced Flooded Battery
EPDM	Ethylene Propylene Diene Monomer
EV	Electric Vehicle
FDI	Foreign Direct Investment
FOB	Free on Board
FTA	Free Trade Agreement
FTE	Full-time Equivalent
GDP	Gross Domestic Product
GVA	Gross Value Added
HS	Harmonised System
HUD	Head-Up Display
ICE	Internal combustion engine(s)
ICSS	Index of Component Signal Strength
IP	Intellectual Property
ISO	International Organisation for Standardisation

ITAC	International Trade Administration Commission
ITC	International Trade Centre (Trade Map)
LSF	Localisation Support Fund
MAD	Moroccan Dirham
MSP	Manufacturing Support Programme
NAACAM	National Association of Automotive Component and Allied Manufacturers (South Africa)
NAAMSA	National Association of Automobile Manufacturers of South Africa
NBR	Nitrile
NEV	New Energy Vehicle
NIPP	National Industrial Participation Programme
NPC	Non-Profit Company
NRCS	National Regulator for Compulsory Specifications
OE	Original Equipment
OEM	Original Equipment Manufacturer
PCA	Principal Components Analysis
PPAP	Production Part Approval Process
PSC	Project Steering Committee
PVB	Polyvinyl Butyral
R&D	Research and Development
RI	Rebate Item
SABS	South African Bureau of Standards
SAM	Social Accounting Matrix
SANS	South African National Standards
SARS	South African Revenue Service
SETA	Sector Education and Training Authorities
SEZs	Special Economic Zones
SIC	Standard Industry Classification
SKD	Semi-knockdown
SKU	Stock Keeping Units
SOP	Start of Production
SME	Small and Medium Enterprise
SMME	Small, Medium, and Micro-Enterprise
SPII	Support Programme for Industrial Innovation
S11D	Section 11D R&D Tax Incentive
TIV	Total Imported Value
TPA	Third Party Administrator

Executive Summary

1. PURPOSE AND CONTEXT

South Africa's Automotive Production and Development Programme (APDP) and the South African Automotive Masterplan 2035 (SAAM) rightly focus on Original Equipment (OE) supply chains and vehicle assembly. They have, however, largely overlooked a substantial and growing segment of the automotive economy: the aftermarket. This study, commissioned by the Localisation Support Fund (LSF) and conducted by EY, represents one of the first comprehensive, data-driven assessments of the aftermarket's size, composition, and localisation potential in the South African context.

The aftermarket — components fitted or replaced after on-line OEM assembly — is harder to define, measure, and regulate than the OE supply chain. Data is fragmented, distribution is multi-tiered, and import penetration is high. Yet the sector is large, structurally stable, and growing. This study estimates its total value at approximately R106 billion in 2025 prices, with annual growth of 7–10% expected through the decade. That scale makes it a materially important arena for industrial policy, employment, and trade.

The primary objective of the study is to identify which aftermarket components represent the clearest opportunities for deeper localisation — where domestic demand, manufacturing capability, price competitiveness, and policy feasibility align closely enough to support practical action at firm, industry, and government levels. The outcome is a focused shortlist of components, each accompanied by a structured business case and implementation roadmap.

2. METHODOLOGY

The study applied a mixed-methods, three-stage framework. This approach was essential given the fragmented nature of the aftermarket, the uneven availability of data, and the need to balance quantitative signals with the operational realities facing firms on the ground.

Stage 1: Trade data analysis

SARS trade data for over 1,000 components and sub-components across 30+ component systems was cleaned and processed using a purpose-built formula. Total import values were adjusted for OE-related flows (rebate items, Chapter 98 imports, and drawbacks), with locally manufactured gross value added (GVA) from SIC 383 added back to arrive at conservative aftermarket size estimates by component system. Trade data served as a primary proxy for domestic demand and supply dynamics.

Stage 2: Statistical prioritisation and stakeholder validation

An Index of Component Signal Strength (ICSS) was constructed using Principal Components Analysis (PCA). This combined six indicators — aftermarket value and volume, export values and volumes, import trends, Revealed Comparative Advantage, product complexity, and economic vicinity — into a single, objectively weighted ranking score, eliminating subjective weighting and reducing duplication across correlated variables. The PCA output was then subjected to sensibility testing through structured

engagements with 25 stakeholders spanning OEMs, component manufacturers, importers, and aftermarket retailers. This step introduced qualitative intelligence — tooling requirements, IP constraints, pricing dynamics, capacity limitations — that trade data alone cannot capture. The result was a long-list of 37 components.

Stage 3: Critical Location Factor (CLF) assessment

Each of the 37 long-listed components was assessed against a structured CLF framework covering demand scale, supplier readiness, technology and skills capability, cost competitiveness, the regulatory environment, and institutional support. This stage produced the final shortlist of 12 components — those where the balance of evidence points consistently toward viable localisation.

The methodology is explicitly designed as an initial, strong step in building an evidence base for aftermarket localisation decisions — not an exhaustive or definitive account of all components with potential. Components excluded from the shortlist are not necessarily unviable; they are simply those where the current evidence does not yet converge sufficiently to support prioritised action.

3. MARKET CONTEXT AND INTERNATIONAL LESSONS

South Africa's automotive aftermarket sits within a global competitive context that is considerably more demanding than the OE supply chain. The total aftermarket for the top 30 component systems is estimated at approximately R76 billion in 2025, with NAAMSA's estimates for remaining component systems adding a further ~R30 billion — for a combined market of approximately R106 billion growing at 7–10% per annum.

South Africa faces structural challenges common to smaller automotive economies. Local content in domestically assembled vehicles is approximately 40% — well below Thailand's 80%+ and Brazil's 60–70%. The country has world-class niche capabilities in areas such as catalytic converters and certain drivetrain components but lacks the broad ecosystem of low-to-mid-tier component suppliers that typically feed an affordable, high-volume aftermarket. The result is heavy dependence on imported aftermarket parts.

Four international case studies — Thailand, Russia, Morocco, and Brazil — were analysed for lessons applicable to South Africa. Several cross-cutting conclusions emerge:

- **Long-term, consistent industrial policy is non-negotiable**. All four countries sustained phased strategies over decades, offering clear incentives and gradually increasing local content requirements. Policy uncertainty, as South Africa's own industrial history demonstrates, undermines investment and supplier development.
- **Supplier clustering and proximity to OEMs drive competitiveness** through economies of scale, technology transfer, and global value chain integration. South Africa's existing SEZs — including Tshwane SEZ, ELIDZ, Coega, and Dube — are underutilised relative to their potential.
- **Scale is the central determinant of aftermarket viability**. Domestic market size alone is rarely sufficient; all four comparator countries leveraged export markets to achieve the volumes needed for competitive unit costs. For South Africa, the African Continental Free Trade Area (AfCFTA) represents the most immediate lever.
- **Protection without structural reform does not work**. The delocalisation of tyre manufacturing — most recently with the closure of Goodyear's Kariega plant after 78 years of operation — illustrates that anti-dumping duties alone cannot sustain production where high input costs, unreliable infrastructure, and global overcapacity combine against local producers.

4. COMPONENT SHORTLIST AND BUSINESS CASES

The three-stage methodology narrows over 1,000 components to a final shortlist of 12. These are divided into two tiers based on the convergence of evidence across quantitative signals, stakeholder validation, CLF assessment, and commercial feasibility.

Tier 1 — High feasibility given current market dynamics and production processes

Lead-acid batteries · Automotive glass · Brake pads · Brake discs · Brake shoes and drums · Spark plugs

Tier 2 — Feasible with additional policy support

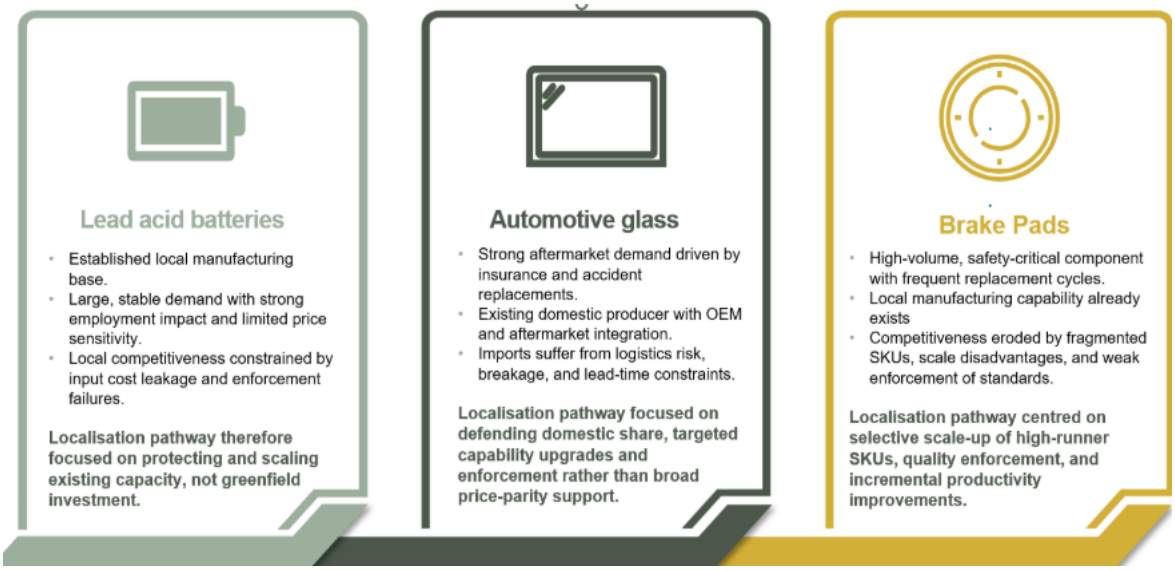
Air filters · Cabin air filters · Oil filters · Fuel filters · Soft gaskets · Mats and floor coverings

Across the 12 components, several structural patterns are important to note:

- **Most localisation opportunities are scale-up challenges, not greenfield investments**. South Africa already has established or partial manufacturing capacity in the majority of shortlisted components. The constraint is not whether production is technically possible, but whether it can be sustained commercially at competitive unit costs.
- **The import price gap is the central feasibility challenge**. Imported products undercut locally manufactured alternatives by between 4% (lead-acid batteries, a narrow gap) and 94% (soft gaskets, a very wide gap). Importantly, direct price-parity subsidies are not cost-effective for most components — the resulting sales uplift does not cover the subsidy required. Instead, competitiveness must be rebuilt through a combination of enforcement, input-cost reduction, scale, and automation.
- **Demand-based price elasticity varies significantly across components**. Lead-acid batteries show highly inelastic demand (consumers replace on failure, not price), while spark plugs, mats, and air filters show greater price sensitivity. This matters for policy design: the tools that work for batteries may not be appropriate for filters.
- **The transition toward new energy vehicles is a medium-to-long-term structural consideration**. ICE vehicles will dominate the South African parc through at least 2030, sustaining demand for most shortlisted components. The exceptions are engine-dependent components (air filters, oil filters, fuel filters) whose long-term demand trajectories are negative as electrification accelerates. Cabin air filters, by contrast, are relevant across all powertrain types.
- **Chinese and Indian brand growth is reshaping the SKU universe**. These brands reached 11.8% of new-vehicle sales in Q1 2025 and are growing rapidly. As they exit warranty periods from approximately 2027, they will introduce new high-volume SKUs into the aftermarket — creating localisation opportunities that manufacturers should begin tooling for now.

5. PRIORITISATION: THE THREE IMMEDIATE FOCUS COMPONENTS

Scoring all 12 components against four normalised criteria — price-parity support required, aftermarket size, job contributions, and benefit-cost ratio — produces a clear ordering. Lead-acid batteries, automotive glass, and brake pads consistently score highest across all criteria and are the focus of the detailed component roadmaps.



Lead-acid batteries (R1.8 billion aftermarket; 2,431 direct, indirect, and induced jobs) represent the clearest near-term opportunity. South Africa already has established manufacturers (First National Battery, Auto-X, Dixon Batteries) producing at domestic scale. The import price gap is narrow at approximately 4%. The binding constraint is input cost: recycled lead accounts for 60–65% of production cost, but scrap battery exports divert this feedstock out of the country, forcing manufacturers to import refined lead at global prices. Restricting used battery exports and standardising the scrap-deposit levy across all sellers — imported and locally produced alike — would materially improve competitiveness without requiring a subsidy.

Automotive glass (R1.4 billion aftermarket; 1,975 jobs) benefits from a structural logistics advantage: imported windscreens break at an average rate of 3.2% of shipments, adding approximately 5.7% to their effective landed cost. South Africa has a dominant domestic producer (Shatterprufe) already operating near the 450,000-unit threshold required for economic furnace operation. The challenge is furnace under-utilisation caused by fragmented demand across 8,000+ part numbers, combined with weak enforcement of existing anti-dumping duties on Chinese windscreens. A tiered insurance reimbursement model — reimbursing 100% for compliant local glass and 80–90% for imports — would create a demand-side incentive that improves utilisation without fiscal cost.

Brake pads (R1 billion aftermarket; 1,297 jobs) have established local manufacturers (G.U.D. Holdings, Girlock Brakes) supplying OEM channels, but the independent aftermarket has shifted predominantly to cheaper imports — typically 20–30% below local prices. Sub-standard imported pads, which use thinner backing plates and lower-grade friction material to undercut on price, represent both a competitive distortion and a road safety risk. The priority intervention is mandatory backing plate thickness testing on a sub-sample of imported brake pads, which would level the competitive field on quality while simultaneously improving consumer safety outcomes.

6. RECOMMENDATIONS

The study's recommendations operate at two levels: component-specific interventions for the three immediate-priority components, and overarching systemic recommendations that apply across the full shortlist.

Component-specific recommendations for lead-acid batteries, automotive glass, and brake pads centre on four action clusters per component: enforcing standards and border controls; improving incentive access and industrial policy tools; focusing production on high-runner SKUs; and building export readiness under AfCFTA. Each recommendation is accompanied by a detailed implementation roadmap specifying activities, responsible and accountable parties, a phased timeline (short, medium, and long term), risks, and mitigations.

Critically, the recommendations consistently identify enforcement — of standards, of anti-dumping duties, of customs classifications, and of trade remedy timelines — as the highest-impact, lowest-cost lever available across all three components. Better enforcement does not require new policy or new spending; it requires better coordination between SARS, SABS, and NRCS, with industry providing structured evidence to support faster case resolution.

Overarching recommendations that apply across all shortlisted components include:

- **Improve demand visibility through structured roundtables between OEMs, component manufacturers, and major retailers** — translating the analysis in this report into shared commercial expectations about high-runner SKUs, replacement cycles, and volume forecasts. This is the single highest-impact cross-cutting action available in the short term.
- **Conduct a skills audit to assess toolmaking capacity, engineering capability, and testing infrastructure** across Tier 2, Tier 3, and aftermarket firms, and invest in shared laboratory and testing infrastructure to reduce duplicated costs.
- **Channel OEM obligations** — including NIPP, AITF, and B-BBEE Enterprise and Supplier Development spend — toward domestic aftermarket component manufacturers with demonstrated capacity for scale-up. These instruments exist; the missing step is deliberate alignment with aftermarket localisation objectives rather than OE supply chains alone.
- **Pursue AfCFTA export development as an explicit objective** alongside domestic localisation, not as a secondary consideration. Mid-sized African markets — Kenya, Nigeria, Ghana, Uganda — offer realistic near-term export opportunities for shortlisted components, particularly lead-acid batteries, automotive glass, and brake pads, where South African producers can compete on reliability, proximity, and quality.
- **Consider expanding the scope of existing production incentives** (MSP, SPII, S11D) to cover aftermarket manufacture more explicitly. Currently, AIS and APDP2 are largely structured around OE supply and online fitment. Extending eligibility — or raising the MSP cap from R10 million — would provide aftermarket producers with access to instruments that their OE counterparts already use.

7. CONCLUSIONS

The analysis establishes clearly that South Africa's automotive aftermarket is both larger and more strategically significant than has previously been recognised in industrial policy. At approximately R106 billion and growing at 7–10% per annum, it is a market that matters — for employment, for import substitution, and for the development of a more resilient domestic manufacturing base.

The study also establishes that meaningful localisation is achievable, but only where the fundamentals support it. The 12 shortlisted components represent those where demand, capability, feasibility, and competitiveness signals align sufficiently to warrant prioritised action. They are not the only opportunities; they are the most defensible starting point based on the current evidence base.

Equally important is what the study does not say. It does not argue that localisation can be achieved through protection or subsidy alone. The experience of tyre manufacturing — where decades of anti-dumping duties and production incentives ultimately failed to prevent plant closures when structural cost disadvantages were not addressed — is a cautionary example of what happens when policy substitutes for competitiveness. The interventions proposed in this report are targeted, evidence-based, and designed to work with market dynamics rather than against them.

Successful localisation of South Africa's automotive aftermarket components depends on four conditions working together simultaneously: sufficient scale, demonstrated manufacturing capability, a supportive and stable policy environment, and operational readiness to compete on cost and quality. No single intervention delivers all four. But the evidence in this report suggests that, for the shortlisted components, all four conditions are within reach — if the public and private sector act with the coordination and urgency the opportunity requires.

Introduction

The South African Automotive Masterplan 2035 (SAAM) - the core strategic pillar guiding developments in the South African automotives sector - focuses predominantly on Original Equipment (OE) supply chains, with a particular focus on the manufacture and assembly of the vehicle from a grass roots level.

The SAAM – along with many other policies and regulations in place to buttress the automotives sector – to some extent, overlooks the country's growing aftermarket segment. As will be discussed throughout the analysis, this aftermarket segment represents a compelling opportunity for localisation however is far more difficult to "box and label". While centralised industry bodies receive detailed production, sales and export data from Original Equipment Manufacturers (OEMs), there remains a significant gap in granular, verifiable and textured data to define the aftermarket, particularly the complex and fragmented landscape of automotive componentry.

As a result, the primary objective of this study is to identify high-potential opportunities for component localisation with a specific focus on production for the local (and potentially international) aftermarket.

Achieving this goal necessitates:

1. Understanding the component aftermarket as an integrated country-wide segment in the broader automotives value chain;
2. Learning lessons from other countries where component localisation has been successful;
3. Understanding what drives the success or failure of localisation in the current country context; and
4. Evaluating the size and scale of the component aftermarket opportunity on a component-by-component basis in a sufficiently granular way to be useful for practical decision making at the firm-, industry- and government-levels.

Importantly, the outcome of this study is a shortlist of components that – on the balance of evidence – are clear cut opportunities for localisation, subject to the navigation of challenges associated with this deeper localisation.

This shortlist is predicated on a mixed methods approach, blending insights from stakeholders and literature with data available for analysis. Importantly, however, this study does not suggest that localisation outside of the shortlist is not feasible or profitable. It is entirely possible, and in fact likely, that the current analysis may exclude some components where aftermarket opportunities exist. As a result, this analysis should be viewed as the first, strong step in the direction towards generating an evidence base to support aftermarket decisions.

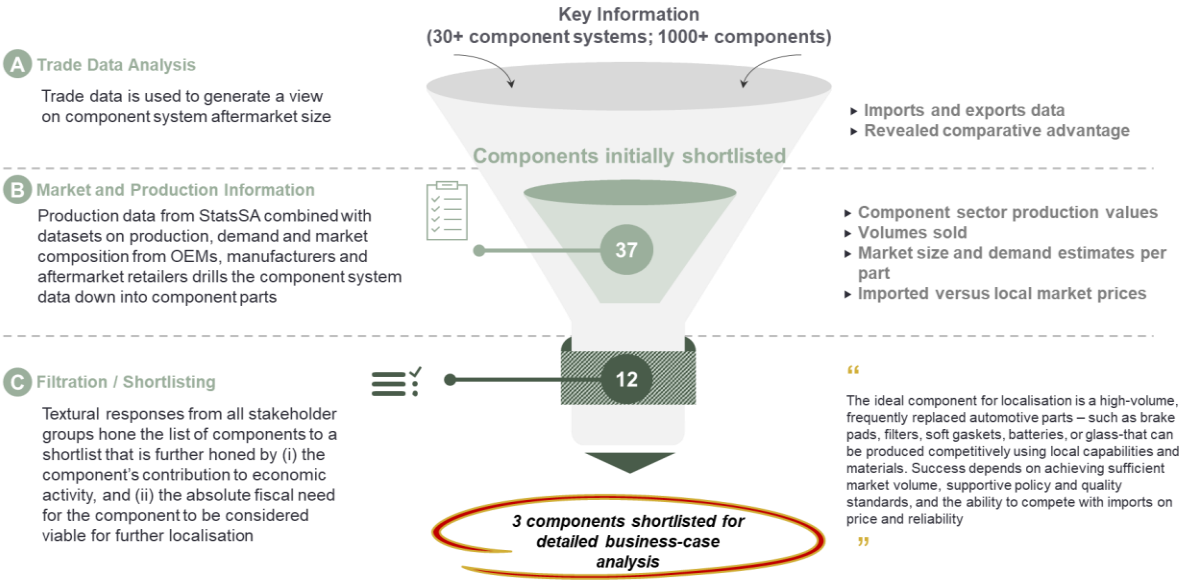
Bearing this context in mind, the report is structured as follows to achieve said objectives:

- **Section 1** provides a snapshot view of the methodology applied,
- **Section 2** provides a suite of case studies regarding (i) countries with similar contexts where such localisation efforts have been particularly effective, and (ii) a small set of components identified that have de-localised to generate lessons learnt for future localisation efforts,
- **Section 3** focusing on applying the methodology in a systematic manner to generate insights into which components should be conceivably shortlisted for localisation for the aftermarket,
- **Section 4** provides for a set of business cases for components that, in the near-term, could provide the largest opportunity for further localisation based on a balance of evidence generated.
- **Section 5** delves into practical recommendations regarding successful, further localisation of these components,
- **Section 6** outlines concluding remarks and reiterates overarching recommendations made.

Section 1: Methodology

This section summarises the three-stage approach used to identify automotive aftermarket components with high localisation potential in South Africa. The methodology progresses from a broad, data-driven foundation through statistical prioritisation, to stakeholder validation and a final feasibility assessment. A full description of the methodology, including the trade data formula, PCA indicator weightings, stakeholder composition, and CLF framework, is provided in **Annexure B**.

Figure 1: Overview of the Project Methodology



STAGE 1: TRADE DATA ANALYSIS

The first stage draws on South African Revenue Services (SARS) trade data to estimate the size of the aftermarket at a component system level. A purpose-built formula adjusts total import values for OE-related deductions (rebate items, Chapter 98 imports, and drawbacks) and adds back locally manufactured value (GVA from SIC 383), yielding a conservative aftermarket size estimate for each component system. This approach covers over 30 component systems and more than 1,000 individual components and sub-components.

Trade data is used as a reasonable proxy for domestic demand and supply dynamics: rising imports indicate growing domestic demand, while rising exports signal sufficient local productive capacity to serve both domestic and foreign markets. The resulting estimates are broadly consistent with NAAMSA's (2025) view of component markets, providing a credible baseline for further analysis.

STAGE 2: STATISTICAL PRIORITISATION AND STAKEHOLDER VALIDATION

The large volume of component-level data was prioritised using an Index of Component Signal Strength (ICSS), constructed through Principal Components Analysis (PCA). PCA combines multiple indicators, including aftermarket size (value and volume), export values and volumes, import trends, Revealed Comparative Advantage (RCA), product complexity, and economic vicinity – into a single, data-driven ranking score. This eliminates subjective weighting and reduces duplication across correlated indicators.

The PCA analysis highlighted that the most influential factors for localisation potential are:

- Domestic productive capacity, as proxied by export values and volumes;
- Aftermarket demand, measured by both volume and value; and
- Import levels as a signal of market size and the potential volume available for localisation.

The PCA-generated ranking served as an analytical baseline, which was then validated through engagements with 25 stakeholders spanning domestic OEMs, component manufacturers, importers, and aftermarket retailers. These engagements introduced qualitative intelligence — including tooling requirements, IP constraints, derivative proliferation, pricing dynamics, and capacity limitations — that quantitative data alone cannot capture. Stakeholder sensibility testing refined the statistical output into a long-list of 37 components across multiple component systems that warranted further investigation.

Noting that trade data is insufficient on its own to fully describe the South African aftermarket, this data was complemented by a set of both qualitative and quantitative datasets generated through stakeholder engagements. A filtration process was then followed to hone the initial trade-data aftermarket view on component systems into a long-list of components which warranted further exploration.

STAGE 3: CRITICAL LOCATION FACTOR ASSESSMENT

The final stage assessed each of the 37 long-listed components against a structured set of Critical Location Factors (CLFs). Derived from international literature on production localisation, automotive sector analysis, and South African industrial policy research, the CLFs evaluate the practical and structural conditions that enable or inhibit viable local production. Key dimensions include demand scale, supplier readiness, technology and skills capability, cost competitiveness, regulatory environment, and institutional support.

The CLF assessment, conducted through stakeholder engagements and a review of available evidence, produced a final shortlist of components considered “low-hanging fruit” for localisation. These are components where demand, capability, feasibility, and competitiveness signals collectively point in the same direction. This list represents a balance of evidence and should be understood as an initial priority focus, not an exhaustive account of all components with localisation potential.

Section 2: Component Localisation Case Studies

2.1 Global case studies

Localisation is a key driver of competitiveness in the automotive industry, enabling countries to strengthen domestic manufacturing and reduce reliance on imports. This section analyses how Thailand, Russia, Morocco, and Brazil have implemented targeted policies and industrial strategies to achieve some successes. These four countries were selected as they are comparable to South Africa from an emerging markets perspective and all have automotive and component manufacturing capabilities. Each case study highlights market structure, local content achievements, policy evolution and success factors, offering practical lessons for building resilient, localised supply chains.

2.1.1 THAILAND'S AUTOMOTIVE COMPONENTS LOCALISATION

In 2023, Thailand's automotive parts market was valued at approximately USD 67 billion, with strong demand for tyres, filters, and engine components. Emerging growth areas include advanced sensors, EV batteries, and electronics, reflecting a shift towards higher-margin products. The market is divided into two segments: OEM's - accounting for around 51% of sales, and the aftermarket parts segment - which makes up about 49%. The aftermarket continues to expand due to an ageing vehicle fleet and rising vehicle numbers, while OEM growth is expected to accelerate as supply constraints ease[1].

Thailand produced ~1.5 million vehicles in 2024, reinforcing its role as one of Asia's leading automotive manufacturing hubs and a major exporter in the region[2].

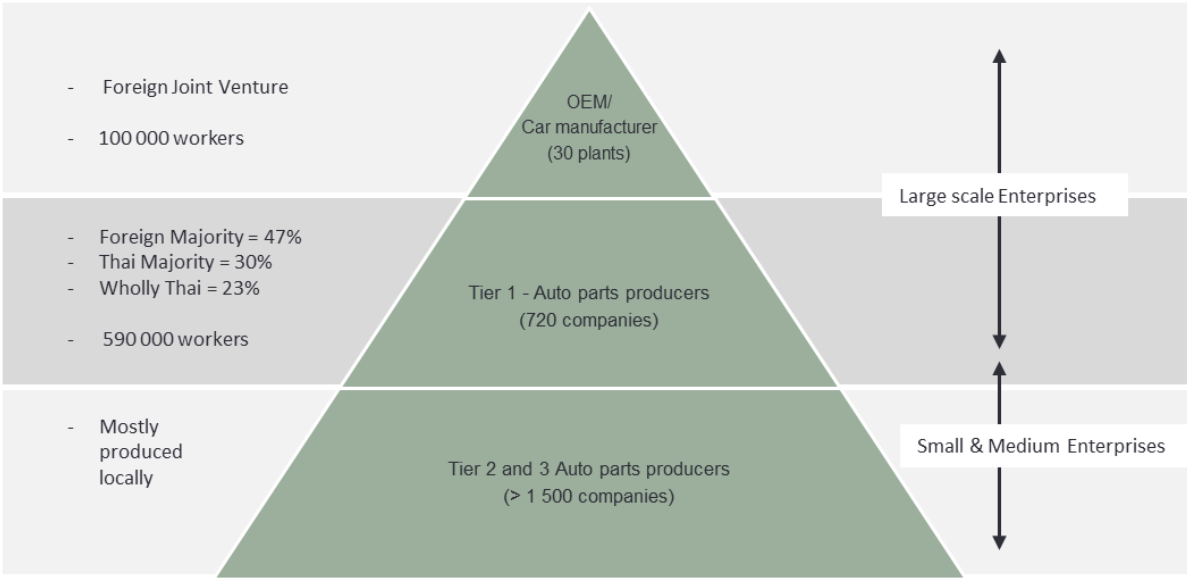
Thailand's automotive parts sector is made up of more than 2 400 players, categorised into three tiers. Tier 1, firms producing high-quality components such as engines, electrical systems, transmissions, and body panels – which accounts for 30% of the players. Ownership in this group is diverse with 47% foreign-owned, about a 30% are joint ventures, and 23% Thai-owned. Most Tier-1 companies focus on vehicle parts (54%), with a smaller share specialising in motorcycle components or both. The second and third tiers are dominated by Thai Small and Medium Enterprises (SMEs), which supply raw materials and simpler parts like rubber, metal fasteners, and plastic mouldings. These suppliers produce both OEM-standard parts and more affordable aftermarket alternatives, supporting both the main manufacturers and the broader replacement parts market[3].

[1] (SMMT, 2025)

[2] (CEIC, 2025)

[3] (SMMT, 2025)

Figure 2: Structure of Thailand's automotive industry



Source: (Rakkarn, Thailand Automotive Industry: Development and Challenges, 2023), (Asean Briefing, 2025)

More than 80% of the parts and components used in vehicles assembled in Thailand are produced locally, reflecting a high level of local content in the country's automotive industry.

Thailand's localisation plan and strategy have evolved over decades, beginning with policies to substitute imports and gradually shifting to export-oriented production and technology upgrading. The government's approach included offering investment packages with both tax and non-tax incentives - such as corporate income tax exemptions, import duty exemptions, and land ownership rights - to attract Foreign Direct Investment (FDI) and encourage local manufacturing. Over time, the strategy moved from assembling imported kits, whether in CKD (Completely Knocked Down) or SKD (Semi-Knocked Down) form, to progressively increasing the local production of components - initially for lower-value items and later for higher-value, more technologically complex parts. In recent years, the focus has expanded to include research and development (R&D) and the transition to EVs with the "30@30" policy aiming for 30% of vehicle production to be electric by 2030[4].

A snapshot view of this localisation process is provided in Table 1 below in phases, indicating a concerted, long-term planning effort needed to get localisation right.

Table 1: Industrial upgrading and developing focus in Thailand's automotive industry

STAGE	PRODUCTION ACTIVITY
1	Repairing imported completely built up CBU's vehicles
2	Assembling of imported CKD and SKD kits (although minor)
3	Producing automotive components, based on OEM of lower value-added parts
4	Producing automotive components, based on OEM of higher value-added parts
5	Establishing research and development centre (R&D). Shifting production towards EVs

[4] (Rakkarn, 2023)

YEAR	DEVELOPING FOCUS
1960	Promotion of local product to substitute import
1980	Promotion of local product to export
2005	1-tonnage truck pickup promotion scheme
2007 – 2013	Eco-Car1, Eco-Car 2 promotion scheme
2017 – Present	EVs production and sales scheme

Source: (SMMT, 2025)

Thailand achieved success in localisation due to multiple factors. One major influence was the government's steady, long-term industrial policy, which offered tax incentives and infrastructure support. Supplier development was promoted through clustering near OEMs, technology transfer programmes, and support for SMEs. The presence of global OEMs and Tier-1 suppliers, attracted by favourable policies and Thailand's strategic location, helped integrate local suppliers into global value chains. The country has also invested in workforce development, resulting in a high proportion of skilled labour. Industry associations have assisted with facilitating coordination and advocacy for the industry. The government's proactive stance on Electric Vehicles (EVs), including the national EV roadmap and targeted incentives, has positioned Thailand as a regional leader in next-generation automotive manufacturing.

Despite these achievements, Thailand faces ongoing challenges that directly affect its automotive industry's competitiveness. The country remains heavily dependent on foreign technology for advanced components and battery systems, limiting domestic innovation and creating vulnerability to global supply chain disruptions[5]. Additionally, Thailand lacks domestic sources of critical minerals for battery production, which raises costs and slows progress toward EV localisation[6]. Workforce upskilling is another pressing need, as the EV transition could displace over 100 000 workers without rapid reskilling in automation, robotics, and green technologies. Competition from other Association of Southeast Asian Nations (ASEAN) countries - such as Indonesia and Vietnam, which are aggressively investing in EV supply chains further intensifies the pressure on Thailand[7]. Policy gaps and regulatory uncertainties around EV incentives and infrastructure, combined with the slow adaptation of some Japanese OEMs, have also been noted as obstacles[8]. These challenges collectively threaten Thailand's ambition to position itself as a regional EV hub and maintain its leadership in automotive production as the industry shifts toward electrification and advanced technologies[9].

[5] (Rakkarn, n.d.)

[6] (Deloitte, 2025)

[7] (Department of International Trade Promotion Ministry of Commerce, 2025)

[8] (Department of International Trade Promotion Ministry of Commerce, 2025)

[9] (International Labour Organisation, 2024)

2.1.2 RUSSIAN AUTOMOTIVE MARKET

In 2024, Russia's automotive aftermarket parts market was valued at approximately USD 38 billion, following a partial recovery from the severe contraction in 2022 caused by sanctions and the exit of Western OEMs. Passenger car sales reached 1.05 million units, while production rebounded by 39% year-on-year to 508 000, driven by domestic brands and Chinese partnerships[10].

Russia's total vehicle production in 2024 was 982 665 vehicles[11].

The market is divided into two segments:

- OEM components account for around 52% of the automotive aftermarket parts (for online fitment, and for the aftermarket, although there is limited data on the split thereof), largely serving domestic assembly and semi-knockdown (SKD) operations.
- Aftermarket parts making up roughly 48%, supported by Russia's ageing vehicle fleet (average age exceeds 11.5 years) and harsh operating conditions that accelerate wear on components such as tires, brake systems, and filters.

Table 2: Examples of automotive parts local production – Russia

COMPONENT CATEGORY	EXAMPLES OF LOCALISED PARTS	KEY PLAYERS	CLUSTER LOCATIONS
Powertrain Components	Simplified engines, gearboxes, drive axles	AvtoVAZ, KamAZ, GAZ	Tolyatti, Nizhny Novgorod
Body & Structural Parts	Stamped panels, exhaust systems	AvtoVAZ, UAZ, Local SMEs	Tolyatti, Ulyanovsk
Seats & Interior Systems	Seats, trims, dashboards	AvtoVAZ, legacy Faurecia plants	Samara, Kaluga
Aftermarket Components	Brake pads, filters, suspension parts	Local SMEs, Exist.ru, Emex.ru	Moscow, Samara

Source: (Cluster of Automotive Industry, 2025), (Riddle, 2024)

To illustrate the breadth and depth of Russia's local manufacturing capabilities, the Table 2 provides concrete examples of automotive parts produced domestically. These examples highlight Russia's ability to support both the OEM and aftermarket segments with a range of locally made components, reflecting the sector's resilience and adaptability despite sanctions and supply chain disruptions.

Russia's automotive localisation journey reflects a turbulent industrial policy shaped by sanctions, geopolitical shifts, and efforts to maintain technological sovereignty.

Russia's production primarily serves its domestic market, though exports to CIS countries remain modest[12]. While official trade data for automotive parts imports/exports in 2024 is limited, previous

[10] (Reuters, 2025)

[11] (Statbase, 2026)

[12] (Automotive Industry Transformation Fund, 2024)

studies show imports significantly exceed exports, underscoring Russia's limited role in global supply chains[13].

Russia achieves approximately 40–50% local content in vehicles assembled domestically, concentrated in clusters such as Tolyatti, Kaluga, and Nizhny Novgorod. Localisation is strong for mechanical components (body panels, exhaust systems, simplified engines), while advanced electronics, infotainment systems, and EV battery packs remain heavily import-dependent, limiting competitiveness in next-generation technologies[14].

Russia's localisation strategy evolved through major phases:

- **Industrial Assembly Regime (2005–2021):** Attracted foreign OEMs and Tier-1 suppliers through duty-free imports and investment incentives.
- **Post-2022 Sanctions Era:** Introduced localisation scoring under Decree No. 719, utilisation fee rebates, and subsidies tied to domestic content.
- **Current Strategy (2023–2035):** Focus on national vehicle platforms, EV localisation, and battery gigafactories, requiring up to USD 4.4 billion in state financing through 2025.

Table 3: Industrial upgrading and developing focus in Russia's automotive industry

STAGE	PRODUCTION ACTIVITY
1	SKD assembly of imported kits
2	Local production of low-value components
3	Localisation of high-value OEM parts (engines, body panels)
4	Integration into domestic clusters and limited exports
5	R&D and EV technology development

YEAR	DEVELOPING FOCUS
2005–2021	Industrial Assembly Regime – foreign OEM partnerships
2022–2024	Import substitution under sanctions; Chinese SKD dominance
2025–2035	National vehicle platform, EV localisation, and battery gigafactories

Source: (Autostat Analytical Angency, 2024)

Supplier development has been supported through legacy clusters in Tolyatti, Kaluga, and Nizhny Novgorod, where domestic OEMs such as AvtoVAZ, KamAZ, and GAZ co-locate with Tier- 1 suppliers. Partnerships with Chinese brands like Chery, Haval, and Great Wall Motors -have filled gaps in assembly capacity, although technology transfer remains limited.[15] Workforce retention has been maintained through state programmes, but skills upgrading for advanced manufacturing and EV technologies is still lagging.

The government's push for technological sovereignty, including plans for national EV platforms and battery gigafactories, signals a commitment to future mobility trends. For example, USD 2.3 billion is planned for the development of a unified modular car platform that could support both internal combustion engine vehicles and EVs[16]. Meanwhile, localisation of key auto-components is backed by

[13] (Kandrashina, et al., 2020) (Autostat Analytical Angency, 2024)

[14] (Kandrashina, et al., 2020)

[15] (Kandrashina, et al., 2020)

[16] (Russia Auto, 2024)

up to USD 4.4 billion in state financing through 2025. However, progress has been slow and EV penetration remains low: actual localisation levels are well below some strategy targets (experts estimate real localisation at ~32-33 %).

Despite these efforts, Russia faces significant challenges. The country remains heavily dependent on imported electronics and semiconductors for critical components such as ECUs, sensors, and infotainment systems (experts cite low localisation of advanced modules)[17]. Domestic R&D capacity is limited, constraining competitiveness in electric and connected vehicles. High production costs and shrinking economies of scale, combined with reduced foreign investment, further weaken the industry's position.

EV adoption is slow due to inadequate charging infrastructure and high battery costs. Although the government is expanding EV infrastructure allocating an additional USD 84 million to build about 2 000 new charging stations over the next three years uptake remains modest[18]. Geopolitical risks also deter global OEMs and Tier -1 suppliers, leaving Russia reliant on Chinese partnerships and domestic champions.

2.1.3 MOROCCO'S AUTOMOTIVE COMPONENTS LOCALISATION

In 2024, Morocco's automotive parts industry was valued at approximately USD 1.5 billion, driven by strong demand for wiring harnesses, powertrain components, and seating systems. Emerging growth areas include EV batteries, electronic modules, and advanced sensors, reflecting Morocco's strategic shift toward higher-value products and electrification[19].

The market is divided into two segments: OEM components which accounts for approximately 70% (the majority of which is OE branded, mostly for on-line fitment) of localisation efforts and exports, and pure aftermarket parts making up around 30% (mostly non-OE branded), serving Morocco's domestic fleet and regional markets[20].

Morocco's automotive aftermarket parts sector comprises over 250 suppliers, organised into a three-tier structure, Tier 1, includes global players such as Yazaki, Sumitomo, and Leoni (these firms are not exclusively aftermarket suppliers but predominantly Tier 1 online-fitment suppliers), producing complex systems like wiring harnesses, seating, and powertrain modules. Tier 2, includes firms manufacturing semi-finished components, including stamped metal parts and plastic mouldings and Tier 3 includes local SMEs supplying raw materials such as steel, aluminium, and rubber, supporting both OEM and aftermarket production[21].

Ownership in Tier 1 is predominantly foreign, reflecting Morocco's integration with European and Asian OEM supply chains. Tier 2 and Tier 3 are dominated by Moroccan SMEs, which provide cost-competitive inputs and benefit from government-backed industrial zones.

Localisation highlights:

- Wiring harnesses: Morocco ranks among the world's top exporters, supplying European OEMs.

[17] (Russia Auto, 2024) (Russia Auto, 2024)

[18] (Interfax, 2025)

[19] (CEIC, 2025)

[20] (Mordor Intelligence, 2025)

[21] (Future and Quality, 2025)

- Powertrain components: Gearboxes, axles, and structural parts increasingly produced locally.
- Seats and interiors: Specialised seating systems for Renault and Stellantis models.
- Emerging areas: EV batteries and electronics, supported by multi-billion-dollar investments in battery gigafactories, including Gotion High-Tech's $5.6 billion plant in Kenitra (20 GWh by 2026, scaling to 100 GWh).

The aftermarket segment continues to expand due to Morocco's growing vehicle parc and aging fleet, creating demand for locally manufactured replacement parts. However, advanced electronics and EV components remain import-heavy, highlighting a gap in high-tech localisation.

To illustrate the breadth and depth of Morocco's local manufacturing capabilities, the figure below provides concrete examples of automotive parts produced domestically. These examples underscore Morocco's ability to support OEM assembly and component exports, reflecting the sector's maturity and adaptability as it pivots toward EV technologies and wiring systems.

Table 4: Examples of automotive parts local production - Morocco

COMPONENT CATEGORY	EXAMPLES OF LOCALISED PARTS	KEY PLAYERS	CLUSTER LOCATIONS
Wiring Systems	Wiring harnesses, cabling	Yazaki, Sumitomo, Leoni	Tangier, Kenitra
Powertrain Components	Gearboxes, drive axles	Valeo, Delphi, SNOP	Kenitra, Casablanca
Seats & Interior Systems	Seats, trims, dashboards	Lear Corporation, Grupo Antolin	Tangier, Kenitra
Body & Structural Parts	Stamped metal panels, fastening systems	SNOP, Induver	Tangier, Casablanca
Aftermarket Components	Brake pads, filters, suspension parts, exhaust systems	Local SMEs, Prorun Bearing	Fez, Casablanca

Source: (Policy Centre for the New South, 2024)

Morocco's automotive localisation journey reflects a progressive industrial policy that transformed the country into Africa's leading automotive hub. In 2024, Morocco produced 559 645 vehicles, with 90% exported, primarily to Europe[22]. Automotive exports reached USD 15.1 billion, making the sector Morocco's largest export industry.

More than 60% of components in vehicles assembled in Morocco are produced locally, driven by strong ecosystems in Tangier and Kenitra[23]. Morocco is a global leader in wiring harness production, exporting over USD 4.7 billion annually[24]. Other localised components include seating systems, body panels, and powertrain subassemblies, while advanced electronics and EV batteries remain import dependent

[22] (CEIC, 2025)

[23] (CEIC, 2025)

[24] (Auto Passionate, 2024)

Table 5: Industrial upgrading and developing focus in Morocco's automotive industry

STAGE	PRODUCTION ACTIVITY
1	SKD assembly of imported kits, albeit modestly
2	Local production of low-value components
3	Localisation of high-value OEM parts (wiring, powertrain)
4	Integration into global supply chains
5	R&D and EV technology development

YEAR	DEVELOPING FOCUS
1990-2000s	Initial focus on SKD assembly and basic parts manufacturing
2014-2020	Launch of Industrial Acceleration Plan (PAI), attracting OEMs like Renault and Stellantis through tax incentives, free zones, and infrastructure investment
2020 - present	Introduction of the Green Mobility Strategy, targeting 60% EV exports by 2030, supported by planned battery gigafactories and R&D centers

Source: (LSE, 2025), (Policy Centre for the New South, 2024), (Eurasia Review, 2024)

Several factors have contributed to Morocco's success in localising automotive manufacturing. Government policy has been central, with long-term industrial strategies such as the Industrial Acceleration Plan (2014–2020) and the updated Investment Charter offering tax incentives, streamlined approvals, and infrastructure development. These measures created a business-friendly environment that have attracted global OEMs like Renault, Stellantis, and BYD, as well as over 250 Tier 1 and Tier 2 suppliers. Morocco's extensive network of free trade agreements - covering more than 50 countries combined with its strategic location just 14 km from Europe, positioned the country as a competitive export hub linking Africa and Europe[25].

Supplier development and clustering have been promoted through integrated industrial ecosystems in Tangier and Kenitra, which co-locate assembly plants, component manufacturers, and logistics services. These clusters facilitate technology transfer and enable local SMEs to participate in global value chains. Partnerships with universities and vocational institutes have strengthened workforce capabilities, while public-private initiatives like Renault's training centre in Tangier have achieved employment integration rates above 95%, ensuring a steady pipeline of skilled labour[26].

Morocco's focus on sustainability and next-generation mobility has further enhanced its competitiveness. The government's EV support includes VAT and customs exemptions for electric vehicles, reduced excise duties, and ambitious targets to produce 100,000 EVs annually by 2026 and raise EV exports to 60% of automotive output by 2030. Investments in charging infrastructure and local production of EV models like the Citroën Ami and Opel Rocks underscore Morocco's commitment to electrification. The country also leverages its renewable energy leadership and phosphate resources for battery components, alongside cobalt imports, to attract battery manufacturing projects.[27]

Despite these achievements, Morocco faces significant challenges. Domestic technology capabilities for advanced components and battery production remain limited, creating reliance on foreign suppliers. High battery costs and limited consumer purchasing power slow EV adoption locally, while charging infrastructure gaps persist in rural areas. Workforce upskilling must accelerate to meet the demands of

[25] (Policy Centre for the New South, 2024)

[26] (LSE, 2025)

[27] (CEIC, 2025)

automation and green technologies[28]. In addition, Morocco competes with established EV hubs in Europe and Asia, and global trade uncertainties could impact its export-driven model. Addressing these issues through deeper R&D investment, stronger local supply chains, and continued policy clarity will be critical for Morocco to maintain its competitive edge as the industry shifts toward electrification and smart mobility.

2.1.4 BRAZIL'S AUTOMOTIVE COMPONENTS LOCALISATION

In 2024, Brazil's automotive parts market was valued at approximately USD 36.1 billion in the aftermarket segment alone, projected to reach USD 46.1 billion by 2030, while vehicle production totalled 2.55 million units in 2024[29]. The country ranks as the 8th-largest automotive market globally, supported by a population of 212 million and a mature manufacturing ecosystem[30]. Growth drivers include rising vehicle sales (up 9.7% in 2024) and an ageing fleet, which sustains aftermarket demand. Emerging opportunities lie in hybrid and electric vehicle components, advanced electronics, and energy-efficient systems, reflecting a gradual shift toward higher-margin and technology-intensive products[31].

Brazil's automotive market is divided into two major segments[32], firstly OEM production, anchored by global manufacturers such as Volkswagen, GM, Fiat, and Toyota, supported by Tier 1 and Tier 2 suppliers. Secondly, aftermarket parts, which includes importers, distributors, retailers, and service providers. The aftermarket segment is critical for Brazil's ageing vehicle fleet.

The automotive aftermarket parts sector comprises a diverse supplier base, concentrated in industrial clusters in São Paulo, Minas Gerais, and Paraná. Tier 1 suppliers such as Bosch and ZF produce high-value components like engines, transmissions, and body panels. Tier 2 and Tier 3 suppliers, mostly Brazilian SMEs, focus on simpler parts such as filters, brake pads, and suspension components. However, the supply chain lacks depth beyond Tier 1, forcing OEMs to import specialised electronics and precision parts.

To illustrate the breadth and depth of Brazil's local manufacturing capabilities, the table below provides concrete examples of automotive parts produced domestically. These examples highlight Brazil's ability to support both the OEM and aftermarket segments with a wide array of locally made components, reflecting the sector's maturity and adaptability as it gradually shifts toward higher-value and technology-intensive products.

[28] (CEIC, 2025)

[29] (CEIC, 2025)

[30] (Government of Brazil, 2024)

[31] (Future and Quality, 2025)

[32] (Research Gate, 2017)

Table 6: Examples of automotive parts local production - Brazil

COMPONENT CATEGORY	EXAMPLES OF LOCALISED PARTS	KEY PLAYERS	CLUSTER LOCATIONS
Wiring Systems	Wiring harnesses, HVAC cabling	Yazaki, Leoni, Local SMEs	São Paulo, Paraná
Powertrain Components	Pistons, crankshafts, camshafts, transmission systems	Mahle, ZF, Bosch	São Paulo, Minas Gerais
Seats & Interior Systems	Seats, trims, dashboards	Lear Corporation, Grupo Antolin	São Paulo, Paraná
Body & Structural Parts	Body panels, stamped metal parts, fastening systems	SNOP, Gestamp, Local SMEs	São Paulo, Minas Gerais
Aftermarket Components	Brake pads, filters, suspension parts, exhaust systems	Fras-le, Cofap, Local SMEs	São Paulo, Rio Grande do Sul

Source: (Leax Do Brasil, 2025), (Future and Quality, 2025)

Brazil's automotive localisation journey reflects a long-standing industrial policy that positioned the country as Latin America's largest automotive hub. Unlike Morocco's export-heavy model, Brazil's production primarily serves its large domestic market, though exports to Argentina and Mexico remain significant. Automotive parts imports totalled USD 8 billion, while exports reached USD 2.5 billion, underscoring Brazil's role as a regional rather than global exporter.

Brazil has achieved 60–70% local content in vehicles assembled domestically, driven by strong industrial clusters in São Paulo, Minas Gerais, and Paraná. Localisation is robust for mechanical components such as engines, transmissions, and suspension systems, as well as aftermarket parts like brake pads and filters. However, advanced electronics, infotainment systems, and EV battery packs remain import-dependent, limiting Brazil's competitiveness in next-generation technologies.

Brazil's localisation strategy evolved through major policy phases:

- **Inovar-Auto (2012–2017):** Focused on import substitution and tax incentives for local assembly.
- **Rota 2030 (2018–2032):** Introduced performance-based incentives tied to R&D, energy efficiency, and safety standards, while promoting hybrid and electric vehicles.

Table 7: Industrial upgrading and developing focus in Brazil's automotive industry

STAGE	PRODUCTION ACTIVITY
1	CKD assembly of imported kits (focus on basic assembly with limited local content)
2	Local production of low-value components (filters, brake pads, simple body parts)
3	Localisation of high-value OEM parts (engines, transmissions, powertrain systems)
4	Integration into regional supply chains (exports to Argentina, Mexico; clustering of Tier 1 suppliers)
5	R&D and EV technology development (focus on hybrid systems, flex-fuel innovation, and gradual electrification)

YEAR	DEVELOPING FOCUS
1950–1980	Import substitution and CKD assembly to reduce reliance on fully built imports
2012–2017	Inovar-Auto Programme: tax incentives, local content rules, energy efficiency targets
2018–2032	Rota 2030 Programme: performance-based incentives for R&D, safety, energy efficiency, and hybrid/EV production

Source: (Leax Do Brasil, 2025), (Future and Quality, 2025), (Government of Brazil, 2024), (Research Gate, 2017)

Several factors have contributed to Brazil's localisation achievements including the government's consistent and long-term industrial policy, notably through Inovar-Auto (2012–2017) and Rota 2030 (2018–2032). These policies have provided tax incentives, local content requirements, and R&D-linked benefits, creating a stable environment for investment[33].

Supplier development has been supported through industrial clusters in São Paulo, Minas Gerais, and Paraná, where OEMs and Tier 1 suppliers co-locate, reducing logistics costs and enabling technology transfer[34]. The presence of global OEMs such as Volkswagen, GM, Fiat, and Toyota, alongside Tier-1 suppliers like Bosch and ZF, attracted by favourable policies and Brazil's large domestic market, has integrated local suppliers into regional value chains[35].

Brazil also invested in workforce development, leveraging its strong industrial base to maintain a skilled labour pool, while industry associations facilitated coordination and advocacy[36]. The government's proactive stance on energy efficiency and hybrid technologies, under Rota 2030, signals commitment to future mobility trends, although EV adoption remains slow due to infrastructure and battery production gaps[37].

Despite these achievements, Brazil faces persistent challenges. The country remains dependent on imported electronics and semiconductors, limiting competitiveness in connected and electric vehicles[38]. Domestic production of EV batteries and advanced electronics is minimal, despite Brazil's raw material advantage, creating vulnerability to global supply chain disruptions[39].

There is a continuous need for workforce upskilling to meet technological demands, and smaller Tier 2 and Tier 3 suppliers struggle with financing and compliance costs under Rota 2030's strict efficiency and safety standards[40]. Additionally, high manufacturing costs up which are to 18% higher than Mexico, widening to 44% when taxes are included - reduce Brazil's global competitiveness[41].

Addressing these gaps, particularly in EV infrastructure, battery gigafactories, and semiconductor capacity, will be critical for Brazil to maintain its position as Latin America's automotive leader and align with global electrification trends.

2.1.5 BENCHMARKING SOUTH AFRICA AGAINST THAILAND, BRAZIL, RUSSIA AND MOROCCO

Based on the analysis presented in Sections 2.1.1 to 2.1.4, the table overleaf provides a comparative summary of the localisation approaches adopted across the four countries benchmarked with South

[33] (Government of Brazil, 2024)

[34] (My Business Brazil, 2025)

[35] (Leax Do Brasil, 2025)

[36] (Future and Quality, 2025)

[37] (Government of Brazil, 2024)

[38] (Research Gate, 2017)

[39] (Future and Quality, 2025)

[40] (Leax Do Brasil, 2025)

[41] (My Business Brazil, n.d.)

Africa. The table highlights the structural differences, and localisation outcomes observed in Thailand, Russia, Morocco, Brazil, and South Africa.

Table 8: Comparative localisation ecosystem and performance indicators

KEY INDICATOR	THAILAND	RUSSIA	MOROCCO	BRAZIL	SOUTH AFRICA
Automotive parts market value	Not publicly disclosed	USD 38 billion (2024)	USD 1.5 billion (2024)	Not disclosed	USD 5-6 billion (2024) - Calculated in the subsequent sections
Aftermarket for automotive parts	Not publicly disclosed	USD 18.24 billion (2024)	USD 450 million (2024)	USD 36.1 billion (2024)	USD 1.5-1.8 billion (2024)
OEM vs Aftermarket (AM) split	OEM is 51% and AM is 49%	OEM 52% and AM 48%	OEM 70% and AM 30%	Not publicly disclosed	Estimated at ~30% OEM and 70% aftermarket in annexures
Vehicle production (units)	1.47 million (2024)	982 665 (2024)	559 645 (2024)	2.55 million (2024)	599 755 (2024)
Vehicle parc (vehicles in use; thousands, 2020)	19 773	56 674	4 120	45 722	10 339
Local content actual achieved (%)	> 80%	32–33%	> 60%	60-70%	~ 40%
Stand-out localised OE strengths	Engines, transmissions, electricals/electronics, body stampings	Engines, gearboxes, axles, seating systems, body parts	Wiring harnesses; gearboxes; seats; body stampings	Not specified	Catalytic converters, engine components, tyres; shafts (Exported)
Stand-out localised aftermarket strengths	Rubber items, simple metal parts	Brake pads, filters, and suspension components	Not specified	Brake pads, filters, and suspension components	Tyres, filters, brake parts and glass.

Source: (Verified Market Research, 2026); (CEIC, 2021); (OICA, 2024),

Thailand, Brazil, and Russia operate at a significantly larger scale than South Africa in both production volumes and the size of their aftermarket ecosystems. South Africa, by contrast, has a far smaller aftermarket despite having a more mature manufacturing base than Morocco. The implication is that scale, not just industrial maturity, drives aftermarket depth: large circulating fleets (Russia, Brazil) and high annual production volumes (Brazil, Thailand) naturally generate broader demand for replacement components and more diversified distribution networks. Morocco, although small in production scale, shows an unusually high OEM share (70 percent), suggesting that its aftermarket remains comparatively underdeveloped in contrast to developing market norms.

Local content capability also provides a useful comparative lens. Thailand surpasses 80 percent local content, far higher than Russia (32–33 percent) and South Africa (around 40 percent). This difference matters for aftermarket growth - deep localisation implies a wider base of domestic component producers able to service replacement demand at competitive prices. In South Africa, the dominance of catalytic converters and certain drivetrain exports does not translate into an equally broad domestic aftermarket manufacturing footprint. Instead, South Africa's export-oriented localisation has produced world-class niche capabilities, but not the extensive ecosystem of low- to mid-tier component suppliers that typically feed an affordable, high-volume aftermarket. This divergence contributes to higher dependency on imported aftermarket parts and constrains opportunities for local cost-competitive AM expansion.

2.2 Components Delocalisation Case Studies

The following case studies examine the factors behind the decision to delocalise specific automotive components - namely tyres, and engine parts in South Africa. Each case highlights the challenges that influenced this shift and explores what conditions would need to change for these components to be successfully re-localised.

2.2.1 TYRES

South Africa's tyre manufacturing industry, once a cornerstone of automotive localisation, is facing increasing delocalisation pressures. Despite a strong domestic market, global competition and structural inefficiencies have eroded competitiveness. The country's tyre production capacity dropped from 12 million to 10 million units between 2018 and 2022, despite anti-dumping duty protection placed on tyres implemented as early as 2016, and now hovering between ~7.18% and 43.6% (differentiated by origin, and manufacturer)[42].

Goodyear's decision to close its Kariega plant – which was announced in June 2025 after 78 years of operation - illustrates the structural challenges facing local manufacturers. The closure was attributed to high input costs, unreliable municipal services, and mounting pressure from cheap imports and resulted in 900 direct job losses and thousands more in the value chain. Goodyear will retain retail and distribution operations but has decided to exit manufacturing entirely - with manufacturing operations ceased in December 202543, signalling a broader risk for the industry44.

Based on the feedback received from industry stakeholders, several critical factors have emerged that explain why tyre manufacturing is being increasingly delocalised in South Africa. These reasons highlight systemic challenges within the local industry, ranging from global competitive and oversupply pressures to domestic regulatory and operational shortcomings.

Figure 3 highlights the key drivers behind this trend. Re-localising tyre manufacturing in South Africa will depend less on introducing new forms of government support and more on ensuring that existing production incentives (particularly the AIS and APDP2) are fully optimised by local manufacturers. While simplifying and enforcing uniform anti-dumping duties remains important, meaningful progress will also hinge on improving operational cost competitiveness through reliable infrastructure and firm-level efficiency gains. Strengthened industry-government collaboration will be needed to deepen localisation of raw materials, encourage appropriate technology investment, and leverage AfCFTA value chain opportunities.

[42] (Who Owns Whom, 2025; ITAC, 2023)

[43] (bbrief trends, 2025)

[44] (Businesstech, 2025)

Figure 3: Systemic and Structural Challenges affecting local manufacturing



Source: Own analysis of data from stakeholder engagements

2.2.2 ENGINE PARTS

Atlantis Diesel Engines (ADE) was established in 1979 as a national strategic resource to supply diesel engines locally during sanctions. Built at a cost of R260 million, ADE operated two engine factories for Daimler-Benz and Perkins, producing engines for commercial, agricultural, and military vehicles such as the Ratel IFV and Samil trucks.

By 1981, ADE expanded with "ADE Part," creating 4 000 jobs and adding a greenfield foundry to produce engine blocks, heads, cranks, cams, and conrods. In 1986, the foundry produced 45,000 castings annually, serving the South African market. ADE reached milestones like its 100 000th 300-

series engine by 1997 and supplied 140 000 engine blocks to Mercedes-Benz, making it a cornerstone of local automotive manufacturing.[45].

Although ADE is still in operation, it's approach has however shifted to higher imported content, limiting the local uplift ADE once had. The lifting of sanctions exposed ADE to cheaper imports, indicating both an upside with respect to importing input components, and a downside associated with increased global competitiveness for parts. Local demand for heavy-duty engines was small compared to global volumes, making large-scale domestic production unsustainable. When Daimler acquired the plant in 1999, the focus shifted to export-driven manufacturing, integrating Atlantis Foundries into Daimler's global supply chain to meet international truck engine demand[46].

Following stakeholder feedback, the additional factors outlined below have been identified as key reasons behind the delocalisation of engine parts production in South Africa.

Figure 4: Key Challenges Limiting Local Engine Part Production in South Africa



While some OEMs build engines in the country for export, engine parts are typically not localised in the aftermarket given pricing differentials between locally produced and imported parts. Significant investment in tooling and technology would be required to produce smaller engine blocks for passenger cars, rather than focusing solely on heavy-duty trucks.

2.3 Lessons Learnt to Enable Successful Localisation

The synthesis below draws on international case studies and domestic stakeholder insight to identify what makes localisation efforts succeed. Each lesson carries direct relevance for South Africa's automotive aftermarket.

[45] (Castings SA, n.d.)

[46] (Castings SA, n.d.)

Based on the case study lessons learnt, successful localisation depends on a blend of scale, capability, supportive policy, and operational readiness. These lessons provide a practical lens through which to interpret South Africa's own localisation prospects.

A. POLICY AND INSTITUTIONAL FOUNDATIONS

A1 Maintain consistent, long-term industrial policy

Long-term industrial policy is essential, although this consistency should be balanced against evolving need: Countries like Thailand and Brazil succeeded by maintaining phased localisation strategies over decades that evolved in-step with sector need, offering clear incentives and gradually increasing local content requirements. Policy uncertainty undermines investment and supplier development.

This study's identification of the shortlisted components provides only the first step in a longer localisation journey. In today's highly competitive global marketplace, it is important to recognise that no single solution can fully resolve all component localisation challenges.

A2 Enforce standards and anti-dumping measures rigorously

Stakeholders emphasised that weak enforcement by both Customs and standards authorities has allowed sub-standard, banned or misdeclared goods to enter the market. SARS is responsible for intercepting illegal goods, preventing "round-tripping" and blocking consignments that are misdeclared, under-invoiced or routed through high-risk channels. SABS/NRCS, in turn, are responsible for testing and verifying the quality and safety of imported batteries and issuing the necessary conformity assessments so that non-compliant goods can be flagged to SARS and blocked at entry. Effective localisation therefore requires coordinated, robust enforcement across customs, standards and anti-dumping systems to prevent low-quality, unfairly priced imports from undercutting compliant domestic manufacturers.

B. MARKET AND COMMERCIAL CONDITIONS

B1 Target high-volume, high-turnover components first

Localisation is most viable for components with frequent replacement cycles and a large customer base – this large customer base enables longer production runs that push economies through manufacturing systems, resulting in lower per-unit costs.

Low-volume or highly specialised parts struggle to justify tooling and equipment investment. However, where demand is fragmented (as in many cases across aftermarket components in South Africa), there is an increasing need for shorter production runs and agile production processes aimed at servicing part of the market at any given time.

Relatedly, any components at the periphery (i.e. where evidence for localisation is mixed) might provide some opportunity, but this type of peripheral opportunity will likely be much more difficult to successfully localise given global competition.

Tooling and technology investment must also be focused. High tooling costs are only viable for high-volume models. Shared tooling, phased investment, and public-private partnerships can assist the case for further localisation, but low-volume or highly derivative parts remain challenging.

B2 Address the cost competitiveness gap directly

Imported products are often 20–75% cheaper than locally produced alternatives based on discussions with stakeholders across the aftermarket portion of the value chain. Localisation is only sustainable where scale, automation, and input costs can close the price gap, or where buyers accept a modest local premium for reliability.

B3 Build export readiness and leverage regional integration

Domestic market size alone is often insufficient; leveraging the likes of the AfCFTA and building export capability are key to achieving scale and justifying investment in local production in the medium- to long-term.

C. CAPABILITY AND INFRASTRUCTURE

C1 Promote supplier development and industrial clustering

Successful countries promoted supplier parks, technology transfer, and close proximity between OEMs and component manufacturers, enabling economies of scale, knowledge sharing, and integration into global value chains.

Successfully leveraging the South African SEZs (which are currently not sufficiently used according to multiple stakeholders) can provide an avenue for further localisation success if component manufacturers and OEs are logistically aligned, and all parties can benefit from the benefits associated with the SEZ. To quite a large extent, this is already happening in South Africa, with the likes of Tshwane SEZ, ELIDZ, Coega and Dube finding success in automotive investment upsides.

D. STRUCTURAL RISKS AND DELOCALISATION PRESSURES

D1 Address structural inefficiencies — protection alone is insufficient

The loss of local component manufacturing capacity in South Africa is due to a confluence of structural inhibitors - high input costs, unreliable infrastructure, small market size, and inability to compete with global suppliers on price and scale given global oversupply and surplus manufacturing capacity in many countries. Re-localisation would require addressing these fundamentals, not just offering protection.

What determines success?

Successful localisation depends on four conditions working together: sufficient scale, demonstrated manufacturing capability, a supportive and stable policy environment, and operational readiness to compete on cost and quality. These lessons provide the practical lens through which South Africa's own localisation prospects are interpreted in the sections that follow.

Section 3: Component Shortlisting Framework

The following shortlisting exercise provides a view of how 1000+ components and sub-components were shortlisted into an ultimate list of 3 components based on a blend of quantitative and qualitative evidence, as described above, beginning with trade data analytics, and ending with the results from the sensibility filtering.

3.1 Trade Data Filtering

The following table provides an aftermarket component value estimation for major component systems traded within the South African economy:

Table 9: Aftermarket value forecast by component systems (2025)

NO	COMPONENT SYSTEM	AFTERMARKET COMPONENT MARKET SIZE FORECAST (2025)
1	Tyres	R 17 397 691 362
2	Body Parts	R 7 493 805 896
3	Brake Parts	R 5 485 549 819
4	Gear Boxes	R 4 311 181 562
5	Wiring harness	R 4 260 322 926
6	Engine Parts	R 4 157 386 773
7	Axles	R 4 153 888 298
8	Engines	R 3 483 647 497
9	Steering Systems	R 2 689 199 810
10	Lighting	R 2 562 971 216
11	Suspension Systems	R 2 266 114 667
12	Ignition Systems	R 2 239 999 215
13	Filters	R 2 155 012 966
14	Batteries	R 2 008 567 555
15	Articles of Rubber	R 1 704 563 151
16	Silencers and Exhausts	R 1 692 720 580
17	Automotive Glass	R 1 436 397 196
18	Transmission Shafts and Cranks	R 1 275 053 506
19	Radiators	R 1 247 283 832
20	Road Wheels	R 1 088 336 880
21	Clutches	R 887 443 902

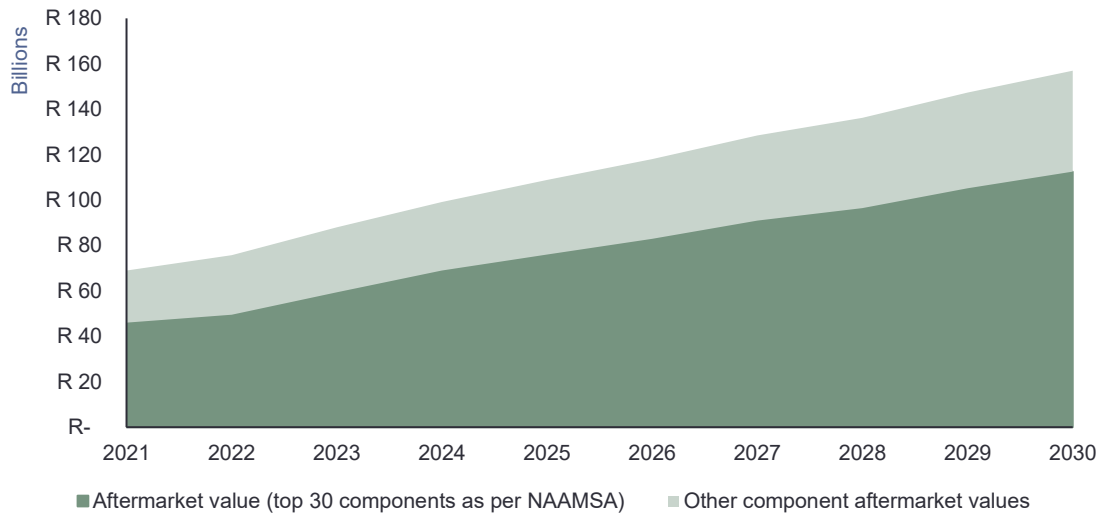
22	Alarm Systems	R 399 603 738
23	Gaskets	R 324 414 366
24	Jacks	R 313 123 879
25	Catalytic Converters	R 281 918 710
26	Seat Belts	R 204 248 153
27	Articles of Plastic	R 186 474 481
28	Seats	R 149 560 330
29	Car radios	R 122 485 975
30	Air Conditioners	R 72 405 610
	Total	**R 76 051 373 849**

Three important caveats apply to the data in Table 9:

- **2024 figures are understated**. Low vehicle sales, reduced manufacturing output (driven by loadshedding and supply chain pressure), and broad price increases dampened aftermarket activity. The 2024 data has therefore been forecast forward to 2025, correcting for current domestic and global vehicle sales trends.
- **Trade data is the baseline, not the ceiling**. Initial sizing relied on macroeconomic and trade data, subsequently deepened and validated through stakeholder proprietary datasets and qualitative engagement.
- **African export figures likely undercount aftermarket size**. Trade data cannot distinguish whether South African component exports into Africa enter OE or aftermarket channels. Given that — outside Morocco, Egypt, and Ghana — no meaningful OE assembly capacity exists on the continent, South African exports to the rest of Africa are, in practice, absorbed into the aftermarket. The figures below are therefore conservative.

With those caveats noted, the top 30 component systems represent an estimated aftermarket of ~R76 billion in 2025. Adding NAAMSA's estimate for remaining component systems (~R30 billion) yields a total market of approximately R106 billion. This is expected to grow at 7–10% per annum, indicating a large and expanding opportunity.

Figure 5: Forecast automotive component aftermarket size



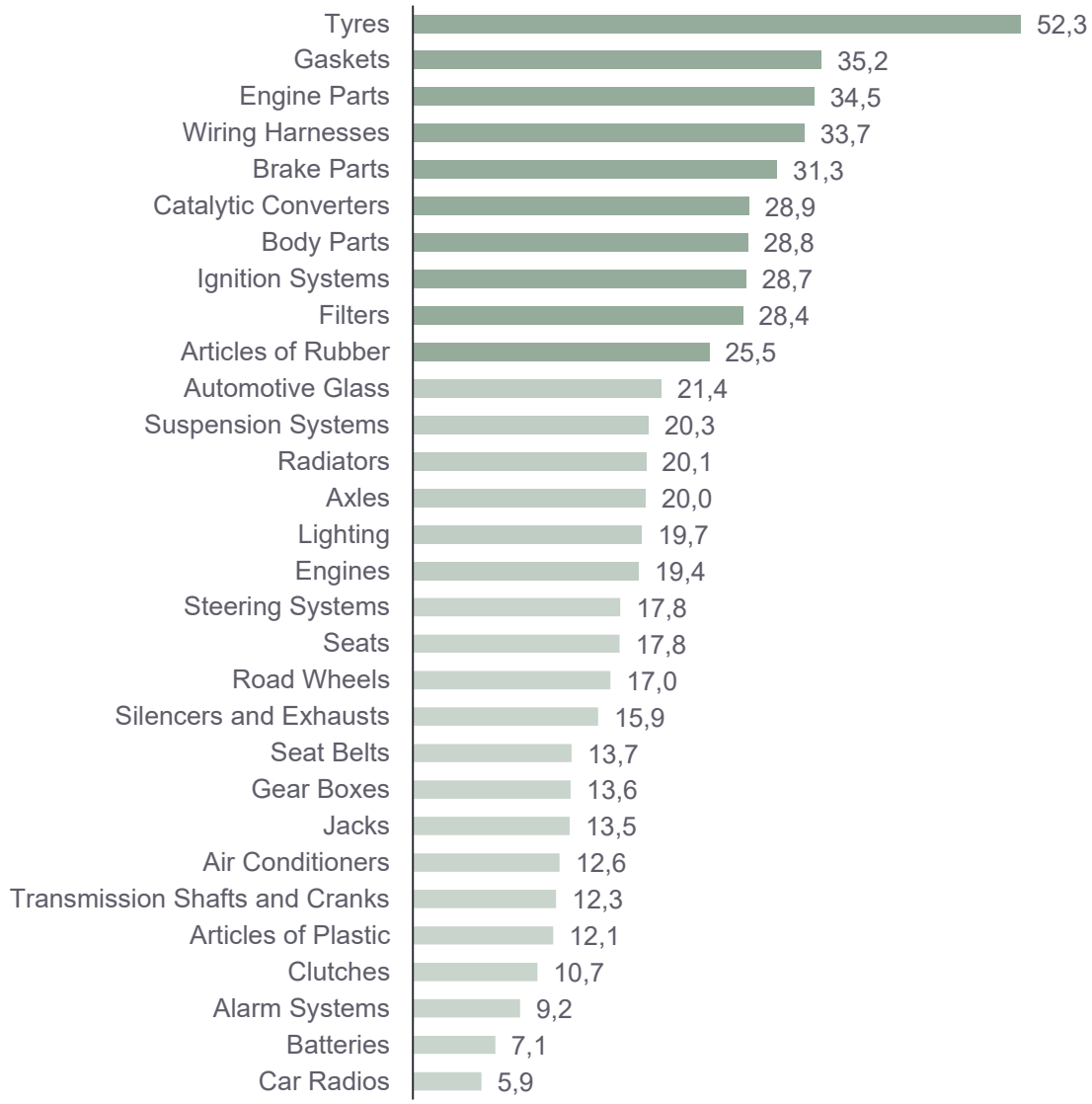
Source: Own analysis of data from (ITC trade map, 2024); (South African Revenue Services, 2021-2025); (Stats SA, 2024); (Harvard University, 2025)

This data at the component system level was evaluated through a signal strength analysis to assess which component systems showed promise with respect to localisation. The signal strength analysis is discussed in detail next, before a deeper evaluation of the components driving such systems level findings.

3.2 Filtering for Signal Strength

Based on this index building process set out before, the following figure provides a ranked view of high-localisation signals from the various data sources:

Figure 6: Quantitative component systems shortlisting results



Note: Dark green indicates strong signal strength for localisation; **medium green** indicates moderate signal strength for localisation; **light green** indicates weak signal for localisation

Two points are important when interpreting the rankings:

- **Scores indicate relative, not absolute, localisation propensity**. The index is designed to rank component systems against one another. A higher score signals stronger localisation potential, and the gap between scores matters as much as the score itself — a large gap between two adjacent components indicates a meaningful difference in propensity, while a small gap suggests similar standing.
- **The analysis is volume-sensitive, and context matters**. The PCA appropriately weights volume, since scale is one of the strongest predictors of localisation feasibility. However, it cannot account for structural distortions. Tyres illustrate this well: high historical volumes push them up the ranking, but persistent dumping — despite anti-dumping measures — has depressed prices and contributed to plant closures. These dynamics do not appear in trade and production data, and are therefore invisible to the PCA. For this reason, the PCA is treated as a baseline signal rather than a final conclusion. Stakeholder engagements moderate the results to reflect commercial viability, enforcement gaps, and operational risks. As the analysis below shows, tyres do not meet the threshold for viable localisation at present.

The sensibility analysis that follows refines the shortlist further, excluding components where contextual factors make localisation unfeasible at this stage.

3.3 Sensibility Filtering

Recognising the complexity in the components aftermarket and noting data limitations which sometimes do not capture this complexity, the stakeholder engagement process was designed to ensure comprehensive coverage across the value chain, with a focus on validating the trade data signals, surfacing operational realities, and capturing the nuanced perspectives of market participants.

3.3.1 AFTERMARKET STAKEHOLDER VIEWS

Stakeholder feedback from aftermarket players was crucial in understanding the feasibility of the ranking developed by the PCA. With this goal of validating the PCA ranking in mind, the researchers engaged with multiple aftermarket players to unpack which products warranted further reflection for further localisation.

Table 10 presents the views of pure aftermarket stakeholders on the shortlist generated by the PCA. In cases where components listed in the PCA are not present in the table below, stakeholders excluded components based on consistent rationale: where a component does not appear in the table, aftermarket players judged it to be unsuited for localisation because it lacks sufficient volumes to support investment, requires technology in which South Africa is not competitive, and/or would demand an initial capital outlay far too large to yield even marginal global competitiveness:

Table 10: Stakeholder feedback for localisation by component systems

COMPONENT SYSTEM	EASE OF LOCALISATION	STAKEHOLDER EVIDENCE
Tyres	Difficult	Most stakeholders did not see tyres as a viable localisation opportunity. They cited overwhelming price competition from Chinese imports and regulatory loopholes as key barriers to viability, with recent local plant closures indicative of these challenges.
Engine parts	Difficult	Engine parts are capital and energy intensive to manufacture. Current manufacturing capacity in South Africa is negligible, and localisation would require significant greenfield investments. Even with such investments, local production is unlikely to compete with imported part prices. Aftermarket volumes are generally low because replacements are infrequent, except for gaskets and bearings. Bearings have lower volumes but could be replicated with minimal tooling adjustments.
Gaskets	Medium	Gaskets are technically feasible to produce locally; however, stakeholders expressed caution. Low demand volumes and high tooling costs make local production challenging. This component's viability is closely linked to the broader feasibility of engine parts localisation and may be best suited for some gasket types over others.
Wiring harnesses	Difficult	Wiring harnesses were considered unviable for further localisation, notwithstanding pockets of wiring harness localisation already. Stakeholders highlighted the need for significant investment and noted the limited size of the domestic market. These components are primarily imported for OEM supply and not necessarily for the aftermarket.
Brake parts	Easy	Brake parts were viewed as a conditional opportunity for localisation. They are safety-critical components systems, making compliance with product safety standard requirements expensive. Imports for brake pads are high, and cost competitiveness remains a challenge. Some brake part sub-components are already localised, offering a potential advantage. However, many product derivatives i.e. vehicle makes and models, complicate tooling and localisation. Opportunities exist in other brake parts such as discs, shoes, drums, and hoses, which have aftermarket volumes in the millions per annum.
Catalytic converters	Difficult	Catalytic converters are already manufactured locally, supported by strong political will. However, demand for platinum group metals (PGMs) is competitive because these metals are used in multiple products. In addition, production volumes are waning in light of an (admittedly more modest in South Africa) uptake of New-Energy Vehicles (NEVs), which do not necessitate cat-cons.
Ignition systems	Difficult (barring spark plugs)	Ignition systems as a whole require large startup investments, although pockets of productive capacity (particularly spark plugs and glow plugs) have large footprints in the country. Other system components require advanced manufacturing technologies that the country does not have currently. **Spark plugs, however, remain an exception, as they are widely localised.**
Body parts	Difficult	Body parts are capital intensive to manufacture. Most OEMs already produce these components systems in-house, and crash part replacements occur at low volumes. Stakeholders also reported severe margin pressure from imports, making localisation unviable without strong anti-dumping enforcement.
Filters	Easy	Filters were widely supported for localisation. They are high-turnover service parts with stable demand, provided local suppliers can meet quality and price expectations. High-replacement items are seen as the most viable for localisation due to better predictability of demand.
Articles of rubber	Difficult (notwithstanding pockets of potential)	Articles of rubber were considered challenging to localise (these included various linings, strips, gaskets, wiper blades, and composite mats). While demand is high, local suppliers struggle to compete with the price and scale of imports.
Automotive Glass	Easy	Automotive glass has existing local manufacturing capacity, and has an added logistical advantage given the fact that importation results in multiple breakages.
Batteries	Easy	Lead acid batteries (which showed low to modest data signals) were considered viable for further localisation (considering their current production) if, and only if, the export of used batteries is restricted to allow recovery of lead as an input. This approach would support local recycling and lead recovery for battery production.

3.3.2 OEM VIEWS ON ONLINE FITMENT AND LOCAL SOURCING

Across multiple interactions with OEMs between 2024 and 2025, the following snapshot presents a view of the degree to which various systems are (i) imported (indicating high volumes), and (ii) localised/localisable (indicating an ability for the local market to service OE demand):

Table 11:OEM survey validation of shortlisted component categories

COMPONENT SYSTEM	DEGREE OF IMPORTATION (PROXIED BY % OF OEMS THAT SUGGEST THIS IS A HIGH-IMPORT PRODUCT)	POTENTIAL FOR LOCALISATION (BASED ON QUALITATIVE DISCUSSIONS WITH OEMS)
Air Conditioners	L	L
Articles of Rubber	M	L/M
Automotive Glass	L	H
Batteries (Lead Acid)	L	H
Body Parts	L	L
Brake Parts	H	M/H
Catalytic Converters	L	L
Engines	L	L
Filters	H	L/H
Gaskets (including seals, o-rings, etc.)	H	M/H
Ignition Systems	M	M/H
Lighting	L	L
Seat Belts	L	L
Seats	L	L
Suspension Systems	H	L

Note: HIGH = H, MEDIUM = M, LOW = L; Other part systems were not mentioned by OEMs, and therefore are considered lower demand, lower localisation potential parts going forward

According to the OEMs, there are only a handful of component systems where demand is moderate/high, and where localisation propensity is moderate/high as well, indicating both high potential demand, matched with strong supply signals. These are highlighted in dark green (where data shows unambiguous opportunity), and light green (where data indicates modest opportunity or contingent volumes and importation propensity) in the table above.

Based on this heatmap and the conversations associated with the development of this mapping, a handful of key comments are important to make regarding the OE view:

1. **Low production volumes remain the primary constraint**, with firms noting that system-wide import patterns and fragmented demand reduce the economic case for localisation, and that some intellectual property restrictions further limit what can be produced locally.
2. **South Africa lacks some critical technical capabilities**, particularly toolmaking, which limits the ability to establish or scale local component production even when multiple specifications need to be supported.
3. **Localisation is only viable in selected categories** where economies of scale can yield stronger per-unit-cost outcomes, as high-tech electronic components and complex manufactured components are not feasible to produce locally, but manufacturers note that savings on logistics and regional volume aggregation (for example through AfCFTA) could justify a local premium of up to about 15 percent in component groups for OE purposes.

3.3.3 CONSOLIDATED VIEW

Based on the PCA evidence, as well as evidence generated through the stakeholder engagement process, the following heatmap provides a sense of component system prioritisation, which assists in the shortlisting process:

Table 12: Localisation heatmap

COMPONENT SYSTEM	PCA	AFTERMARKET	OE
Brake Parts	Strong	Strong	Strong
Filters	Strong	Strong	Strong
Automotive Glass	Moderate	Strong	Strong
Gaskets	Strong	Moderate	Strong
Batteries	Weak	Strong	Moderate
Articles of Rubber	Strong	Moderate	Weak
Ignition Systems	Strong	Weak	Moderate
Body Parts	Strong	Weak	Weak
Catalytic Converters	Strong	Weak	Weak
Engine Parts	Strong	Weak	Weak
Tyres	Strong	Weak	Weak
Wiring Harnesses	Strong	Weak	Weak
Suspension Systems	Moderate	Weak	Moderate
Axles	Moderate	Weak	Weak
Air Conditioners	Moderate	Weak	Weak
Articles of Plastic	Moderate	Weak	Weak
Engines	Moderate	Weak	Weak
Gear Boxes	Moderate	Weak	Weak
Jacks	Moderate	Weak	Weak
Road Wheels	Moderate	Weak	Weak
Seat Belts	Moderate	Weak	Weak
Seats	Moderate	Weak	Weak
Silencers and Exhausts	Moderate	Weak	Weak
Steering Systems	Moderate	Weak	Weak

Transmission Shafts and Cranks	Moderate	Weak	Weak
Lighting	Moderate	Weak	Weak
Radiators	Moderate	Weak	Weak
Alarm Systems	Weak	Weak	Weak
Car Radios	Weak	Weak	Weak
Clutches	Weak	Weak	Weak

Note 1: Dark green indicates strong evidence for localisation.

Note 2: “Moderate to weak” signals were ranked as “Moderate” in the above to ensure a wider casting of the net for further evaluation

Table 12 is ordered by strength of evidence (i.e., by counting the number of “Strong” and “Moderate” responses). Based on a balance of evidence (if one component system has one strong and one moderate piece of evidence for localisation, irrespective of source), the component system is analysed in further detail to whittle down a more detailed component level view on the key components that should be put forward for further focus in this study. As a result, the following component system classifications are important to flag based on the data analysed:

1. **The first clustering of components (brake parts, filters, automotive glass and gaskets) shows consistently strong signals across all evidence sources**, with high and stable aftermarket demand supported by clear feasibility for local production. These represent the most compelling and immediate opportunities for localisation.
2. **The second clustering of components (batteries, some articles of rubber and one ignition system component in particular which will be discussed further on) reflects moderate to high demand and reasonable localisation potential**, where viability depends on targeted interventions, improved competitiveness, or supportive policy conditions. These components are promising but require further development to unlock full localisation potential.
3. **The third clustering (all other components) shows modest demand and limited localisation feasibility** based on the current evidence, with structural barriers, scale constraints or capability gaps that make successful localisation unlikely in the short to medium term.

While the analysis above prioritises components in the first two clusters for deeper review, it is still important to recognise that pockets of local manufacturing already exist across some of the “lower priority” categories. These operations are typically smaller in scale, serve niche or derivative-specific demand, or operate in markets where aftermarket volumes are modest, making them less of a case for further study in this analysis. Even so, some of these component manufacturing businesses have developed credible, commercially viable models in their own right, particularly where they have specialised capabilities or longstanding customer networks.

The intention of this study is not to diminish those efforts, but rather to identify a set of components where the balance of evidence is broadly aligned (across data, aftermarket stakeholders, and OEM inputs) on where the most meaningful, scalable localisation opportunities lie for the aftermarket.

Given the quantitative evidence analysed to prioritise component systems, the next step in the filtration process was to deepen the analysis at the component level. The data at this level of granularity does not exist in any consistent or centralised form, stakeholders were asked to identify the five to ten components within each shortlisted system that most strongly drive demand. Stakeholders were further asked to identify the specific components driving system-level demand, enabling the study to move from systems to components in a structured manner, as shown below:

Figure 7: Key components identified for further analysis



EY own analysis of data based on stakeholder engagements

From this refined “longlist”, the analysis then applied two further layers of filtration to arrive at a shortlist.

The first was a detailed assessment against CLFs used to understand which components genuinely underpinned the system-level signals and could plausibly be localised given South Africa’s current capabilities, supply chain conditions, and technology requirements.

The second was a practical screen intended to identify components that could be localised in the short term without requiring large capital investments or significant incentives to close the price gap with imports. Together, these two steps ensure that the components progressed to the next stage of assessment are not only analytically strong candidates for localisation but are also realistic opportunities under present market and policy conditions.

The first of these additional layers of filtration – the CLF analysis – is provided overleaf for all components and systems mentioned in the prior figure.

3.3.4 CRITICAL LOCATION FACTOR EVALUATION

Figure 8 provides a summary of CLFs across component systems, with a discussion of particular components within those systems identifying the penultimate shortlist of 12 components:

Figure 8: CLF heatmap for in demand component systems

Component System (down) / CLF theme (across)	Market dynamics and demand profile	Supplier landscape and investment type	Capability and technology requirements	Cost structure and investment needs	Value chain integration and raw material availability	Policy and incentives landscape	Institutional support availability
Lead acid batteries							
Automotive glass							
Brake Parts							
Filters							
Gaskets							
Articles of rubber							
Ignition systems							

Note: Dark green indicates a very positive outlook on CLFs; **medium green** indicates a modestly positive outlook on CLFs; **blank cells** indicate weak outlooks for the various CL

The heatmap is ordered from most, to least localisable from a CLF perspective – the darker green a particular component system row is, the more CLFs are in favour of localisation.

Figure 9: Final component shortlist based on the current balance of evidence



Several key points regarding the above heatmap are crucial to flag and are discussed next.

1. **Lead acid batteries are considered a core opportunity for further localisation**

Demand for batteries is high and increasing given an increasing parc size (estimated to grow at a CAGR of 8% between 2024 and 2030[47]). Established manufacturing capacity already exists, with continued viability depending on small policy improvements, as will be discussed in more detail further on.

2. **Automotive glass is considered another prime opportunity for further localisation**

Given the logistical disadvantage of importing glass (noting its breakability – where, according to a global study, breakage rates average some 3.2% of shipments, and increase costs by 5.7% resultantly[48]), and considering that local manufacturers currently produce approximately 2 500 windscreens per day across roughly 200 different versions, high and increasing local demand can be catered for by local production to a large extent. In addition, the anti-dumping duties already imposed on certain Chinese windscreen manufacturers signal policy support for domestic producers; however,

[47] (Grand View Research, 2024)

[48] (GSR Glass, 2025)

stakeholders emphasised that the priority is effective enforcement of existing measures rather than seeking additional duties.

3. **Metal brake parts are likely to be more feasible for further localisation:**

Metal parts have a strong case for localisation given the current production capabilities and value chain input advantages relative to other countries. Given high demand, brake pads, shoes, drums, and discs are all feasible to localise based on an initial evaluation of evidence.

Metal brake part tooling and production processes are also less complex, making the case for local production.

Brake hoses are synthetic rubber and are less affordable to manufacture locally given the cost of inputs. Most synthetic rubber in South Africa is imported, making the cost disadvantage of production too large relative to other countries.

4. **Various filters could be considered for localisation:**

Filters are well-suited for localisation as they use paper, synthetic fibres, and plastic/metal housings typically; some of these inputs are locally available or can be competitively available through importation.

Air, oil and fuel filters should be the main localisation focus as they dominate aftermarket sales and are most viable for local production. The market for cabin air filters is, however, anticipated to expand in the coming years, and as a result, could be viewed as a critical opportunity for further localisation.

Complexity in localisation relates to the amount of filter derivatives in the market (some 2 300 filters), although some high demand filters make up a large portion of market demand.

Imported filters undercut local products by 20 to 80% highlighting the need for anti-dumping and policy support to ensure localisation feasibility. A suite of other measures is mentioned in the ensuing discussion set regarding filters.

5. **Gaskets show only modest localisation feasibility**

Gaskets come in two main varieties (although there are more technical sub-categories) – soft and hard. While some manufacturers exist in the market, their focus relates to the non-metal/soft gasket market as opposed to the metal gasket market (given price competitiveness constraints).

Gaskets are also derivative diverse. In the case of metal gaskets, buyers tend to purchase in bulk (coming in kits of 50-100 for a particular brand). This diversity of derivatives is a tooling disadvantage locally and, coupled with muted demand for metal gasket replacement, volumes are too low and erratic in the aftermarket to make a compelling business case.

With an anchor in planning demand, however, soft gaskets – which require less retooling and can be made more price competitively - may be a feasible localisation opportunity.

Rubber articles are, more broadly, generally highly uncompetitive on price compared to imports; however, there is a limited opportunity to localise certain rubber-composite products where modest aftermarket demand exists.

6. **Modest aftermarket demand exists for mats / floor covering, and high aftermarket demand exists for windscreen wipers.**

On mats, local production is feasible for universal types, although price competition is strong from an import perspective. Non-complex production processes do, however, make the case for some modest localisation should sufficient demand volumes exist given incredibly thin margins in a proliferated import competition space.

On wiper blades, given alternative market production dynamics, South African blade manufacturing is price non-competitive (especially given the entry of cheaper rubber wipers into the aftermarket which is budget conscious).

Ignition system parts should not be considered for localisation, barring one component.

Most high-tech ignition systems (ignition control modules, coil-on-plug units, ion-sensing ignition systems, etc.) are excluded for further localisation suggestions based on the degree of high technology requirements for manufacturing; coupled with a lack of local manufacturing processes currently, a depth of skills in high-tech manufacturing, and limited volume replacements in the aftermarket of these high-tech parts.

Spark plugs are considered to be a feasible opportunity. A large local production network currently exists, with this network being well integrated into the global inputs value chain. Currently, manufacturers have strong technical capability to meet the high local demand.

These components warrant one final filtration process – an assessment to evaluate the degree to which each component's localisation business case rests on (i) government intervention, (ii) modest economic contributions, and (iii) structural impediments to the production process that are challenging to overcome. Based on this analysis, the list mentioned above is whittled into a final "shortlist" of components where a more formal exploration and roadmap to localise is proposed.

3.4 Business Case Diagnostics

The business cases presented in this section are intended as diagnostic assessments, rather than definitive investment plans or localisation recommendations. Their purpose is to take the twelve components identified through the PCA analysis, stakeholder validation, and CLF assessment, and subject them to a structured feasibility screening.

This step allows the list to be whittled down further, ensuring that the components carried forward into the final shortlist reflect not only strong data signals, but also practical commercial, operational, and industrial realities.

Each business case therefore follows a consistent analytical framework across six dimensions:

- **Demand dynamics**, including forecast volumes and replacement cycles,
- **Economic contribution,** broken down by component and estimated using a standard multiplier framework,
- **Production requirements** including materials, tooling needs, and process complexity.
- **Cost competitiveness**, focusing on key drivers of local versus imported pricing.
- **Structural and capability considerations**, including supply chain depth, technical skills, and quality standards.
- **Enabling conditions**, such as infrastructure reliability, regulatory enforcement, and potential industry-level improvements.

These cases should be understood as comparative screening tools. They are designed to highlight where immediate opportunities may exist, where localisation could become viable with targeted improvements in competitiveness or capability, and where barriers are too significant to justify deeper exploration at this stage. Importantly, they are not presented as subsidy proposals or fiscal recommendations; any references to incentives, tariffs, or policy levers are contextual and intended only to illustrate how relative competitiveness might shift under different operating conditions.

In this way, these business cases serve as the final analytical filter, moving the study from a longlist supported by data and stakeholder insight to a practical shortlist of components that merit focused attention in subsequent localisation planning.

These business cases are provided starting with brake pads. Annexure C highlights the implicit cost breakdown used across components to obtain a sense of detailed costs, with Annexure C discussing OEM (typically, on-line fitment as it stands) sourcing approaches and the proliferation of new models (importantly, on the latter point, these might not drive demand in the near-term but are crucial to mention for long-term aftermarket demand analysis). This is only altered when stakeholders mentioned a deviation from the findings in the annexure.

Table 13 summarises the 12 components assessed in the diagnostic business cases. It provides a high-level view of demand, existing local capability, key constraints and the nature of the localisation challenge (scale-up vs greenfield) before the component-by-component detail that follows.

Across the 12 shortlisted components, localisation opportunities are predominantly anchored in existing local manufacturing or assembly capability, with most components requiring scale-up rather than greenfield investment.

Table 13: Business case diagnostics summary (12 components ranks highest to lowest tier opportunity)

COMPONENT	MARKET SIZE & VOLUMES	IMPORT PRICE DISADVANTAGE	DEMAND & MARKET CONTEXT	GDP CONTRIBUTION (ZAR M)	EMPLOYMENT (JOBS)	EXISTING LOCAL CAPABILITY	KEY CONSTRAINTS	BUSINESS CASE SUMMARY
Lead-acid batteries Tier 1	R1.6bn 1.5–2.4m units	**~4% cheaper** *(narrow gap)*	Large, stable demand across full vehicle parc; high recycling relevance	**Direct: R1,600** Indirect: R1,306 Induced: R188	**Direct: 616** Indirect: 1,574 Induced: 241	Established capacity Scale-up (not greenfield)	Export of used batteries; weak recycling and trade enforcement	*Scale, competitiveness and enforcement to protect recycled lead feedstock*
Automotive glass Tier 1	R1.3bn 957k–1.6m units	**30–35% cheaper**	Strong demand driven by insurance replacements; logistics advantage vs fragile imports	**Direct: R1,300** Indirect: R1,061 Induced: R153	**Direct: 500** Indirect: 1,279 Induced: R196	Dominant domestic producer Scale-up	Import circumvention; weak quality enforcement; ADAS tooling complexity	*Protect local share via enforcement; build targeted capability for newer specs*
Brake pads Tier 1	R1.1bn 2–3m units	**20–30% cheaper**	Very large, stable aftermarket; frequent replacement; price-sensitive consumers	**Direct: R976** Indirect: R715 Induced: R134	**Direct: 288** Indirect: 838 Induced: 171	Established manufacturing Scale-up	Weak safety enforcement; SKU proliferation; fragmented volumes	*Quality enforcement, high-runner SKU focus and scale — not purely low-hanging fruit*
Brake discs Tier 1	R400–500m 919k–1.5m units	**20–30% cheaper**	Large and growing; OEMs source locally but aftermarket relies on imports	**Direct: R424** Indirect: R311 Induced: R58	**Direct: 125** Indirect: 365 Induced: 74	Some local capacity Targeted scale-up	Energy intensity; tooling/IP barriers; infrastructure instability	*Feasible for high-volume SKUs; hinges on cost stability and tooling pathway*
Brake shoes & drums Tier 1	R200–300m 300–700k units	**~30% cheaper**	Moderate volumes; concentrated in ageing vehicle parc	**Direct: R233** Indirect: R182 Induced: R26	**Direct: 86** Indirect: 220 Induced: 34	Baseline capability Scale-up, volume-limited	Low, fragmented demand; duplicated tooling; price sensitivity	*Selective localisation of dominant derivatives; demand aggregation required*

Spark plugs Tier 1	R400–600m 1.4–1.7m units	**~20% cheaper** *(narrow gap)*	Large, stable demand; essential ICE component	**Direct: R492** Indirect: R715 Induced: R134	**Direct: 288** Indirect: 838 Induced: 171	Assembly/local network Scale-up feasible	Proprietary tech inputs offshore; standards and trade admin gaps	*Stable standards enforcement and predictable trade administration*
Air filters Tier 2	R800m 3.4–4.7m units	**>50% cheaper**	Very high-volume service part; predictable, high-turnover demand	**Direct: R798** Indirect: R751 Induced: R108	**Direct: 307** Indirect: 857 Induced: 138	Assembly capability Scale-up (not greenfield)	Imported filter media dependence; large price gap; overhead inflation	*Compete on quality segments and scale; enforce against sub-standard imports*
Cabin air filters Tier 2	R157m 425–582k units	**~75% cheaper**	Smaller but fast-growing; increasing relevance in NEVs	**Direct: R157** Indirect: R128 Induced: R18	**Direct: 61** Indirect: 155 Induced: 24	Assembly capability Scale-up (not greenfield)	Small scale; large import price gap; low consumer willingness to pay	*Medium-term play: build volume as parc evolves and quality differentiation grows*
Oil filters Tier 2	R373m 5.7–7.9m units	**~20–70% cheaper** *(quality-dependent)*	High-volume, frequent replacement; low price sensitivity at quality end	**Direct: R373** Indirect: R304 Induced: R43	**Direct: 144** Indirect: 367 Induced: 56	Assembly capability Scale-up (not greenfield)	Imported media dependence; severe low-end price pressure	*Focus on quality segments and standards enforcement; avoid subsidy framing*
Fuel filters Tier 2	R400m 1–1.3m units	**~65% cheaper**	Moderate, stable demand while ICE vehicles dominate the parc	**Direct: R373** Indirect: R304 Induced: R43	**Direct: 144** Indirect: 367 Induced: 56	Some assembly possible Niche localisation	Very large import price advantage; limited local input substitution	*Maintain competitiveness through standards, predictability and scale*
Soft gaskets Tier 2	R800m–1bn 5.8–7.6m units	**~94% cheaper**	Low to moderate; fragmented; stronger in fleet and taxi segments	**Direct: R743** Indirect: R429 Induced: R91	**Direct: 128** Indirect: 335 Induced: 69	Limited Niche feasibility only	Extremely cheap imports; fragmented/erratic demand; derivative diversity	*Niche/fleet-focused viability only; not a mass localisation lever*
Mats & floor coverings Tier 2	R62m 221–292k units	**~60% cheaper**	Moderate; largely non-critical accessory purchase	**Direct: R62** Indirect: R50 Induced: R7	**Direct: 24** Indirect: 61 Induced: 9	Possible at SMME scale Limited industrial case	High price sensitivity; thin margins; limited scale	*Developmental/SMME support rather than industrial protection*

Section 4: Aftermarket Component Localisation Business Cases

4.1 Tier 1 / High Feasibility Components

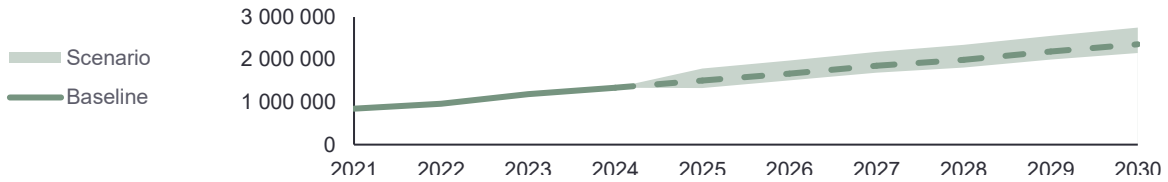
4.1.1 LEAD-ACID BATTERIES

A. Market overview and demand context

The aftermarket for lead-acid batteries is large and structurally stable, driven by the size and age profile of the national vehicle parc. Batteries are replaced every three to five years on average, making demand predictable and relatively price-insensitive — a 1% increase in price yields only a 0.05% reduction in volumes. The total aftermarket (imported and local) is forecast to exceed 2.4 million units per annum by 2030, with a current value of approximately R1.6 billion (2024 prices).

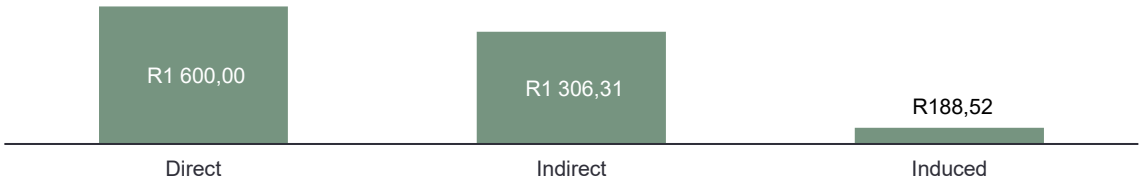
OE aftermarket volumes (within-warranty replacements) average approximately 500,000 units per annum. The remaining 1.1 million+ sets per annum are supplied to independent aftermarket channels. Battery demand closely follows the composition of the vehicle parc, with the top five vehicle models — Toyota Hilux, Ford Ranger, VW Polo, VW Polo Vivo, and Toyota Corolla — accounting for a significant share.

Figure 10: Forecasted lead-acid batteries aftermarket size (# of sets)



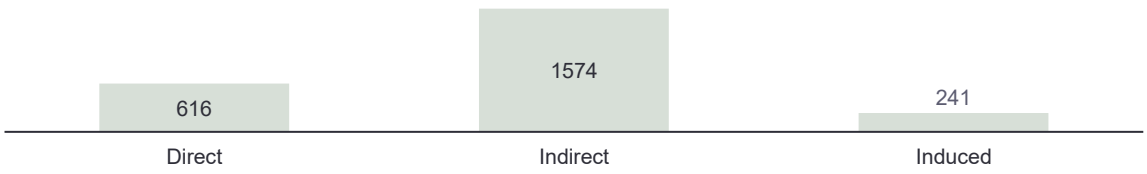
Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 11: GDP contribution of the lead-acid battery market (R millions)



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 12: FTE equivalent job contributions for lead-acid battery



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

B. Value chain and local manufacturing capability

The value chain begins with raw materials: lead (sourced through local recycling and imports), sulfuric acid (available locally), and polyethylene separators (imported). These are processed through casting, plate formation, assembly, charging, and quality testing before distribution to OEM and aftermarket channels. The chain concludes with recycling — lead-acid batteries are among the most recycled automotive components in South Africa.

South Africa has established local manufacturing capacity, led by First National Battery, Auto-X, and Dixon Batteries. Localisation in this segment is primarily a scale-up and competitiveness challenge rather than a greenfield investment requirement.

C. Key component specifications

Battery specifications are largely standardised across the top-volume vehicle models, with most requiring 12V, 60–80Ah configurations. The table below summarises fitment codes and typical specifications by vehicle.

Table 14: Component specifications for lead acid batteries

VEHICLE	COMMON FITMENT	TYPICAL BATTERY SPECS
Toyota Hilux	652, 658, 668, 674, 652C (DIN/EN/JIS codes for 2.4 GD, 2.8 GD-6, 2.5 D-4D, 3.0 D-4D, 4.0 V6; 2005–2025)[49]	12V, 70–80Ah, 600–750 CCA, dimensions 278×175×190 mm
Ford Ranger	652, 668, 674 (T6/TKE, 2.2 TDCi, 3.2 TDCi, 2.0 Bi-Turbo; 2011–2025)	12V, 70–80Ah, 600–750 CCA, dimensions 278×175×190 mm
VW Polo	652, 630, 646 (Polo 6R/6C, GTI variants; 2010–2022)	12V, 60–70Ah, 540–650 CCA, dimensions 242×175×190 mm
VW Polo Vivo	652, 630 (Polo Vivo I & II; 2010–2025)	12V, 60–70Ah, 540–650 CCA, dimensions 242×175×190 mm
Toyota Corolla	652, 630, 646 (2014–2025, including 1.6, 1.8, 2.0 petrol variants)	12V, 60–70Ah, 540–650 CCA, dimensions 242×175×190 mm

Battery codes based on OE fitment and leading aftermarket catalogues (Willard, Sabat, Exide, Raylite)

D. Applicable quality and safety standards

- IEC 60086 — General battery standard; ensures interchangeability of form, fit, and function
- IEC 60095 — Lead-acid starter batteries; specifies test methods and performance requirements
- ISO 14001 — Environmental management systems; relevant for recycling and disposal
- ARS 228:1984 — African regional standard for automotive lead-acid starter batteries

E. Price competitiveness and cost analysis

Import price gap

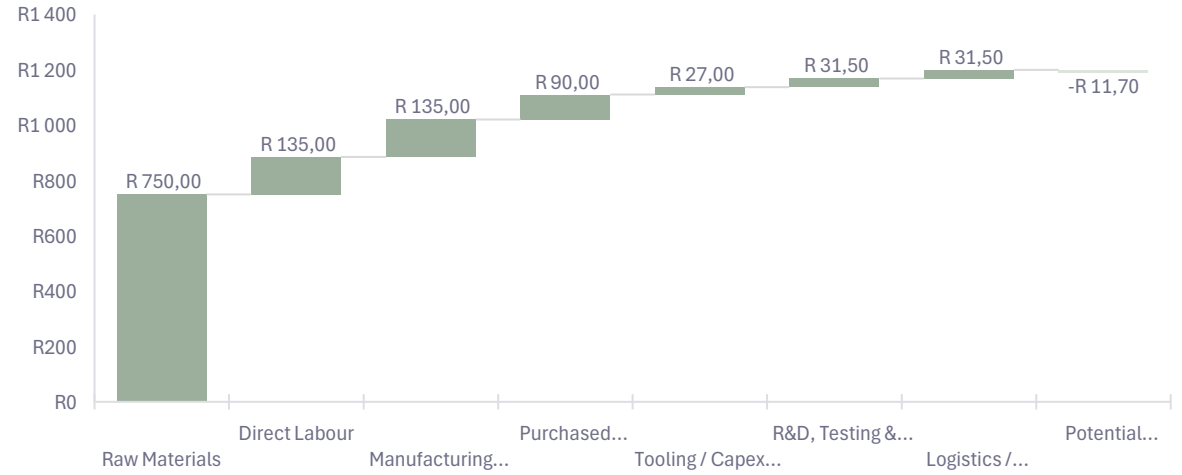
Imported batteries land approximately 4% below the benchmark local production cost — a narrow gap by comparison to most other components. The 30% MFN customs duty provides meaningful but incomplete protection; circumvention, misclassification, and poor enforcement reduce its practical effect.

Price sensitivity

Highly inelastic — a 1% price increase yields only a 0.05% reduction in demand. Batteries are a necessity; consumers replace on failure, not on price movements.

49 Battery codes and specifications are based on OE fitment and leading aftermarket catalogues (Willard, Sabat, Exide, Raylite). Actual fitment may vary by engine and trim.

Figure 13: Price breakdown for lead-acid batteries



Own analysis of data from stakeholder engagements, and information from (Autoride, 2025; Mill Auto Parts, n.d.; GeoMechanic, n.d.)

Cost–benefit of price parity mechanism:

- At a lower-end aftermarket price of R1,200/unit and achievable savings of ~R11.70/unit, the post-savings domestic price is approximately R1,188. Against a landed import price of ~R1,150, the residual gap is R38.30/unit.
- Scaling this across 2025 aftermarket volumes implies a price-parity subsidy requirement of approximately R57.7 million per annum.
- Due to highly inelastic demand, this subsidy would generate only ~R3.8 million in additional market value — well below the subsidy cost.

In cost–benefit terms, a price-parity subsidy is not justified for lead-acid batteries. The narrow price gap is better addressed through enforcement and input-cost reduction than direct financial support.

F. Enabling conditions for successful localisation

Policy and regulatory interventions:

- Restrict export of used batteries to protect domestic recycled lead feedstock, reducing input costs for compliant local manufacturers
- Strengthen enforcement of the scrap-battery deposit system to prevent recycled lead leaking into informal channels
- Tighten border enforcement on misdeclared or sub-standard imports — effective enforcement outweighs higher nominal tariff rates
- ITAC customs duty increases to MFN rate to narrow the landed-cost differential

Industry-led competitiveness improvements:

- Improve access to affordable recycled lead through tighter scrap-return management and partnerships with formal recyclers
- Invest in backup power and heat-recovery systems to reduce overhead costs from load-shedding and infrastructure disruptions
- Pursue incremental automation in plate-casting, pasting, curing, and formation-line handling to reduce unit costs

- Optimise production scheduling to minimise formation-line downtime and improve throughput
- Strengthen warranty management and retailer technical support to build brand trust and sustain volume

G. Future demand considerations

NEV Transition

The transition toward EVs is unlikely to materially reduce demand over the medium term. Many EVs currently sold in South Africa retain a 12-volt lead-acid auxiliary battery for safety-critical low-voltage systems. While some global platforms are transitioning to 12V lithium-ion auxiliaries, this is gradual and limited locally given low NEV penetration. The large and ageing ICE parc will continue to dominate aftermarket demand through at least 2030.

Recycling and industry-led competitiveness

Used batteries are frequently exported rather than recycled domestically. Since lead retains its quality through multiple recycling cycles, this practice forces manufacturers into a costly hybrid model — recycling in part and importing refined lead at global prices for the rest. Restricting used battery exports would protect domestic feedstock and improve cost competitiveness. Effective enforcement of any such restriction requires meaningful skills development for export controllers, moving beyond a checklist approach to genuine assessment of whether a consignment contains used product.

Beyond this policy lever, stakeholders identified five firm-level actions that domestic manufacturers can pursue independently:

Access to affordable recycled lead. Tighter management of scrap returns, partnerships with formal recyclers, and improvements in internal lead recovery would materially reduce the single largest input cost.

Energy and process stability. Smelting, curing, and formation cycles are highly energy-intensive. Load-shedding, water interruptions, and power surges disrupt process flows and increase scrap rates. Targeted investment in backup power for critical process steps, heat-recovery systems, and improved process-control infrastructure can mitigate these risks.

Incremental automation. Skills gaps and utilities instability both contribute to higher cost structures. Incremental automation in plate-casting, pasting, curing, and formation-line handling improves consistency and reduces labour overhead and rework — without requiring greenfield capital expenditure.

Production planning. Formation cycles are long, making throughput highly sensitive to stoppages. Better batch scheduling, predictive maintenance on formation racks and chargers, and tighter process-time optimisation can reduce costly downtime materially.

Quality and reliability signalling. Battery purchases are brand-trust driven even where demand is price-inelastic. Strengthening warranty management, visible quality assurance, and retailer technical support can shift volumes toward domestic brands without requiring full price parity.

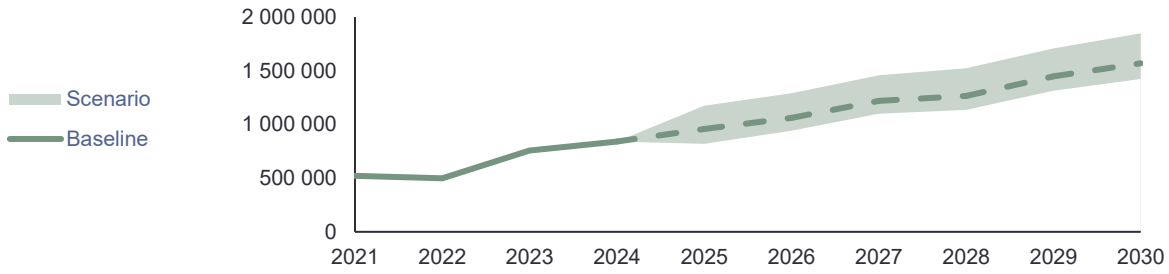
4.1.2 AUTOMOTIVE GLASS

A. Market overview and demand context

Automotive glass — particularly windscreens — is a high-frequency aftermarket replacement driven by road hazards, accidents, and high vehicle mileage. Insurance-driven replacement is a major demand channel. The aftermarket (imported and local) is forecast to reach 1.6 million units by 2030, with a current value of approximately R1.3 billion (2024 prices). Demand is modestly price-sensitive — a 1% price increase yields a 0.82% reduction in volumes.

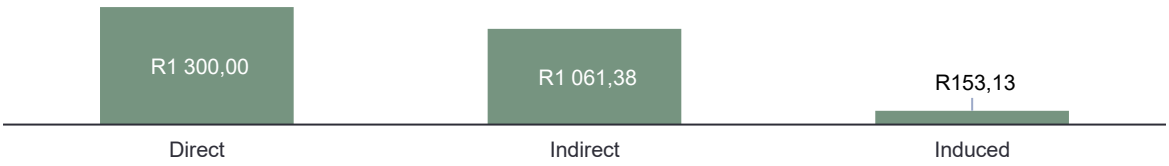
Windscreens dominate replacement demand; side and rear glass are replaced far less frequently. High-mileage fleets — taxis and buses — represent a concentrated demand pool, with stakeholders applying a rule of thumb that ~10% of the relevant parc requires windscreen replacement annually. Local production is only viable for high-volume models, making taxis, buses, and the top-selling passenger models the priority targets for tooling investment.

Figure 14: Forecasted automotive glass aftermarket size (# of units)



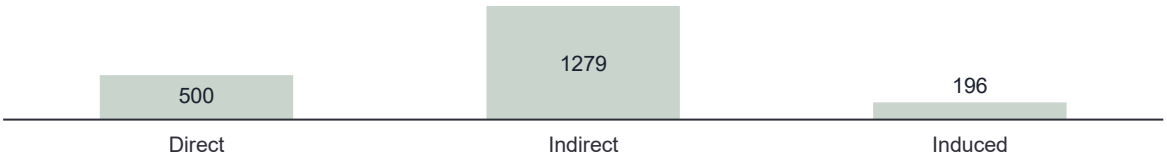
Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 15: GDP contribution of the automotive glass market (R millions)



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 16: FTE equivalent job contributions for automotive glass



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

B. Value chain and local manufacturing capability

Raw materials (silica sand, soda ash, limestone) are processed into flat glass via the float glass method. Sheets are then tempered or laminated and fabricated to precise vehicle specifications, with features such as ceramic frits, UV coatings, and ADAS sensor mounts added as required. Finished glass is distributed to OEM plants or aftermarket fitment centres.

South Africa has a dominant domestic producer — Shatterprufe — supplying both OEM and aftermarket channels. Localisation is primarily a scale-up and enforcement challenge rather than a greenfield investment requirement. Furnace capacity requires approximately 450,000 windscreens per year to be economic; current production of ~2,500 units per day across ~200 variants broadly supports this threshold.

C. Key component specifications

N/A

D. Applicable quality and safety standards

Key standards for automotive glass in South Africa include the following[50]:

- **ECE R43 / ARS 1595** — Safety glazing materials; impact resistance, optical clarity, fragmentation behaviour
- **ISO 3537** — Road vehicles safety glazing; test methods covering light transmission and mechanical strength
- **SANS 1193** — South African standard aligned with ECE R43 for laminated and toughened glass
- **SANS 1263** — Safety glazing materials for both automotive and building applications

E. Price competitiveness and cost analysis

Import price gap

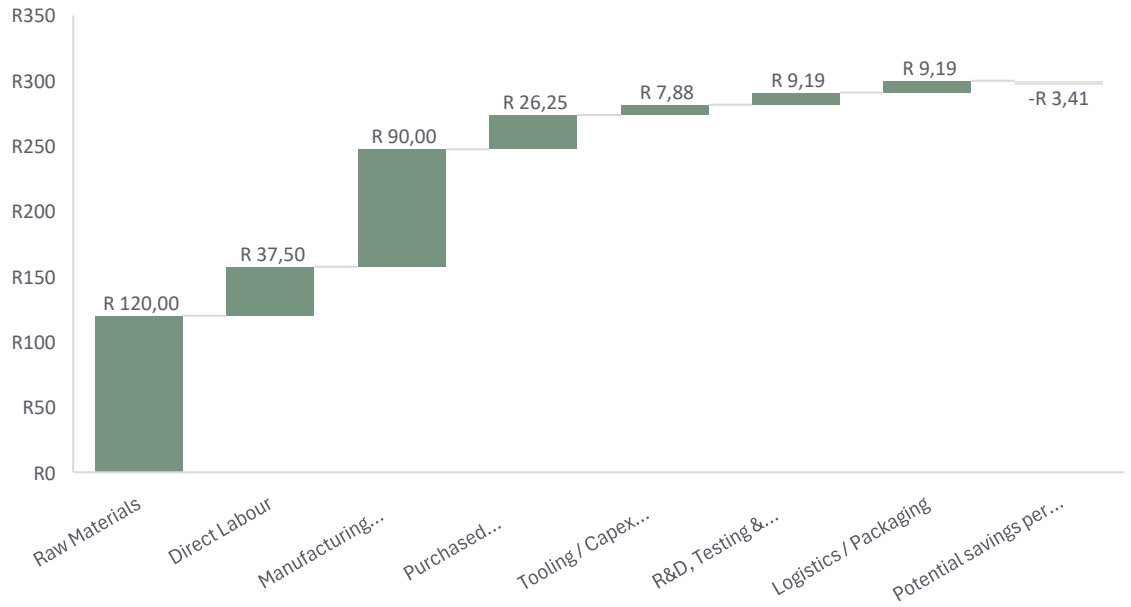
Imported automotive glass typically lands 30–35% below the price of locally manufactured alternatives. However, the practical cost advantage of imports is eroded by breakage risk (industry average ~3.2% of shipments, adding ~5.7% to effective landed cost), longer lead times, and availability constraints — all of which matter critically in an insurance-driven, availability-sensitive market.

[50] (UNECE, n.d.); (SABS, 2025); (NRCS, 2014) (African Organisation for Standardisation, 2021)

Price sensitivity

Modestly price-sensitive — a 1% price increase yields a 0.82% reduction in volumes. Buyer preferences are strongly weighted toward local supply due to availability, quality certification, and insurance compliance requirements.

Figure 17: Price breakdown for automotive glass



Own analysis of data from stakeholder engagements, and information from (Autoride, 2025; Mill Auto Parts, n.d.; GeoMechanic, n.d.)

Cost–benefit of price parity mechanism:

- Local glass retails at approximately R1,500/unit; landed import price is ~R1,005/unit. After achievable savings of ~R3.41, the domestic price falls marginally to ~R1,497.
- Assuming buyers accept a 10% premium for local product, the import-parity reference price is R1,106 — still substantially below the domestic price.
- Scaling the required subsidy across market volumes implies a price-parity intervention of ~R374.5 million per annum, against a demand uplift of ~R309.8 million — a net cost.

A price-parity subsidy is not justified. The stronger case rests on enforcing existing anti-dumping duties, preventing circumvention and trans-shipment, and investing in ADAS-specification tooling to maintain competitiveness as vehicle technology evolves.

F. Enabling conditions for successful localisation

Policy and regulatory interventions:

- Enforce existing ITAC anti-dumping duties (Report No. 722) on Chinese windscreen manufacturers — rates of 12.92% to 129.15% are in place but undermined by misdeclaration and country-hopping
- Improve border testing capability to identify non-compliant glass and prevent sub-standard imports entering the market
- Prioritise enforcement over additional duties — stakeholders consistently identify this as the highest-impact intervention

Industry-led competitiveness improvements:

- Invest in tooling for ADAS-compatible glazing (heated windshields, sensor mounts, panoramic configurations) to maintain relevance as newer vehicle models enter the parc
- Target taxi and bus fleet programmes to secure high-volume, predictable replacement contracts that underpin furnace economics
- Manage electricity and infrastructure risk through backup power investment — load-shedding and power surges represent a material operational cost

G. Future demand considerations

NEV adoption is not expected to reduce glass demand; it is expected to increase specification complexity. Global trends point to higher glass-to-body ratios in EVs, growing adoption of panoramic roofs, and increasing ADAS integration requiring heated windshields and conductive coatings. Local manufacturers will need to invest in capability upgrades to capture demand from newer vehicle generations.

4.1.3 BRAKE PADS

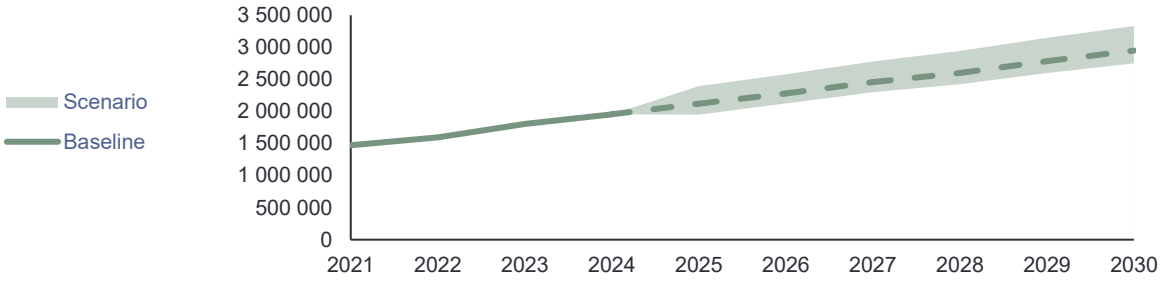
A. Market overview and demand context

Brake pads represent one of the largest and most stable aftermarket segments in South Africa, with demand of 2–3 million sets per annum forecast through to 2030. The market is valued at approximately R1.1 billion (2024 prices). Replacement is mileage-based — typically every 35,000–45,000 km — with significantly shorter intervals for high-utilisation commercial fleets. Demand is price-elastic (~0.75), meaning a 30% price reduction could unlock approximately 22% in additional demand.

OEM channels account for approximately 650,000 sets per annum (vehicles under warranty). The remaining 1.4+ million sets are served by independent aftermarket retailers and suppliers. Chinese and Indian brand vehicles are growing rapidly — reaching 11.8% of new-vehicle sales in Q1 2025 — and will add a new set of high-runner SKUs to the aftermarket as they exit warranty from approximately 2027.

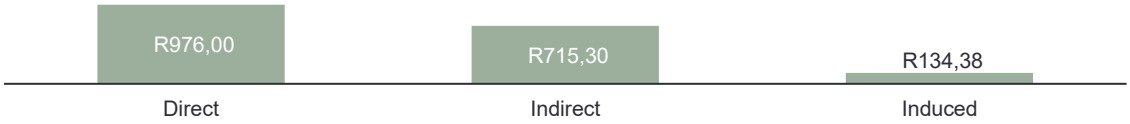
OEMs source brake pads locally for on-line fitment. Independent aftermarket retailers have shifted predominantly to imported product due to price competitiveness — particularly from Asia.

Figure 18: Forecasted brake pad aftermarket size (# of sets)



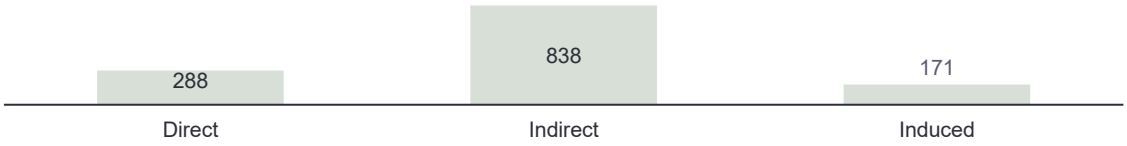
Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 19: GDP contribution of the brake pads market (R millions)



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 20: FTE equivalent job contributions for brake pads



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

B. Value chain and local manufacturing capability

The value chain begins with steel backing plates and friction compounds (ceramics, metallics, and organics). Materials are moulded, cured, and tested, then distributed to OEM assembly plants and aftermarket retailers. Recycling or disposal closes the cycle.

South Africa has established local manufacturing capacity led by G.U.D. Holdings and Girlock Brakes, supplying both OEM and aftermarket channels. Localisation requires scale-up and SKU focus rather than greenfield investment.

C. Key component specifications

The table below presents specifications for the top-volume vehicle models driving aftermarket demand for this component.

Table 15: Component specifications for brake pads

VEHICLE	COMMON FITMENT	LENGTH	HEIGHT	THICKNESS	ESTIMATED SETS PER ANNUM (ROUNDED, NEAREST 10 000)
Toyota Hilux	2.4 GD, 2.8 GD-6, 2.5 D-4D, 3.0 D-4D, 4.0 V6 (2005–2025)	119.3–143.5 mm	67.7–77.1 mm	16.8–17 mm	~90 000
Ford Ranger	T6/TKE (2011–2025), 2.2 TDCi, 3.2 TDCi, 2.0 Bi-Turbo	147.9–194 mm	52–68 mm	15.6–17 mm	~60 000
VW Polo	Polo 6R/6C (2010–2022), GTI variants	131–146 mm	52–54.7 mm	17–19.7 mm	~50 000
VW Polo Vivo	Polo Vivo I & II (2010–2025)	131–146 mm	52 mm	17.4–18.6 mm	~50 000
Toyota Corolla	Corolla models (2014–2025), including 1.6, 1.8, 2.0 petrol variants	~139.5 mm	54.4–56.4 mm	~16.5 mm	~30 000

Sources: (Autodoc, 2025) (Brembo parts, 2025)

D. Applicable quality and safety standards

- **ECE R90** — Mandatory for replacement brake pads in South Africa; ensures OEM performance within a ±15% variance band
- **SABS standards** — Local certification aligned with ECE and ISO norms
- **ISO 6312 / ISO 6313** — Test methods for friction materials and performance evaluation
- **ARS 1595:2021** — African regional standard; adopts UNECE R13/R13H for braking system requirements

E. Price competitiveness and cost analysis

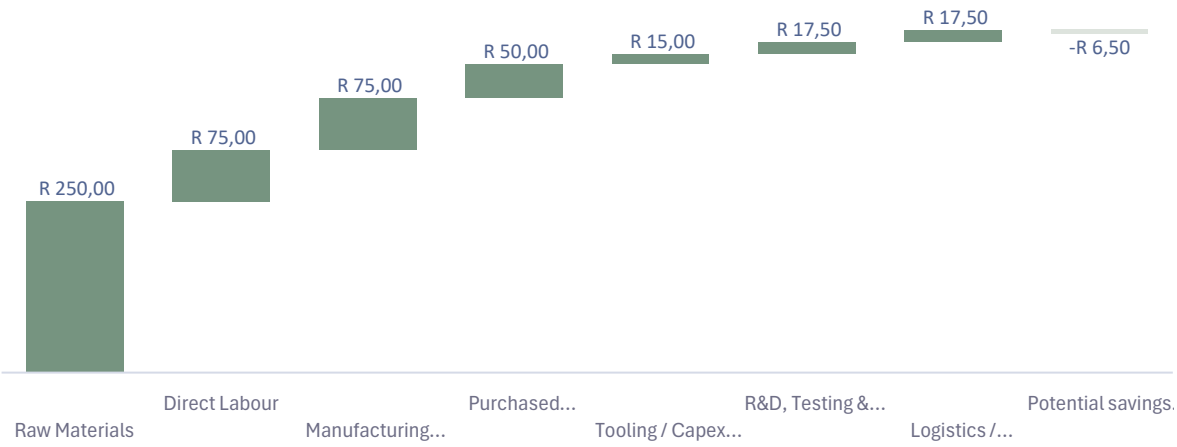
Import price gap

Imported brake pads typically land 20–30% below local production costs. The gap is driven by thinner backing plates and lower-grade friction materials in imported products, combined with scale advantages, lower raw material costs, and freight efficiencies. Even with 10–30% import duties and ~20% freight and clearing costs, imported pads remain cheaper.

Price sensitivity

Moderately price-elastic — a 1% price increase yields a 0.75% reduction in volumes.

Figure 21: Price breakdown for brake pads



Own analysis of data from stakeholder engagements, and information from (Autoride, 2025; Mill Auto Parts, n.d.; GeoMechanic, n.d.)

Cost–benefit of price parity mechanism:

- At a median aftermarket price of R500/set and achievable savings of ~R6.50, the residual domestic cost gap is approximately R143.50/set.
- With buyers willing to accept a 10% premium for local product, the price-parity instrument needed is approximately R108/set.
- Scaled to 2025 market volumes, this equates to a price-parity requirement of ~R230 million per annum, against a demand uplift of ~R185 million.

A direct price-parity subsidy does not yield sufficient revenue to offset its cost. The more effective pathway combines quality enforcement (product testing for backing plate thickness), high-runner SKU focus, and targeted volume aggregation.

F. Enabling conditions for successful localisation

Policy and regulatory interventions:

- Mandate product testing on imported brake pad imports: a sub-sample check on backing plate thickness would level the playing field on quality and safety
- Tighten safety standard enforcement — sub-standard imported pads present a safety risk and undercut compliant producers unfairly
- Support OEM second-brand programmes to create a stable local volume baseline for aftermarket-spec pads

Industry-led competitiveness improvements:

- Focus production on high-runner SKUs to enable longer runs, fewer changeovers, and better overhead absorption
- Invest in agile tooling and batch-manufacturing technology to service SKU diversity without disproportionate efficiency loss
- Pursue incremental automation in friction-material processing, backing-plate preparation, and curing

- Develop modest export capability into SADC and AfCFTA markets to build scale beyond the domestic market
- Collaborate with retailers on structured ordering and rolling forecasts to stabilise production planning

G. Future demand considerations

EVs rely primarily on regenerative braking, reducing friction-pad wear cycles. However, EVs still require friction pads for low-speed braking and emergency stops, and their greater mass increases instantaneous load. Given South Africa's low EV penetration, ICE vehicles will dominate the parc through at least 2030. Brake pad demand will remain stable in volume terms; the main changes will be in SKU mix as newer Chinese and Indian brands become a larger share of the parc.

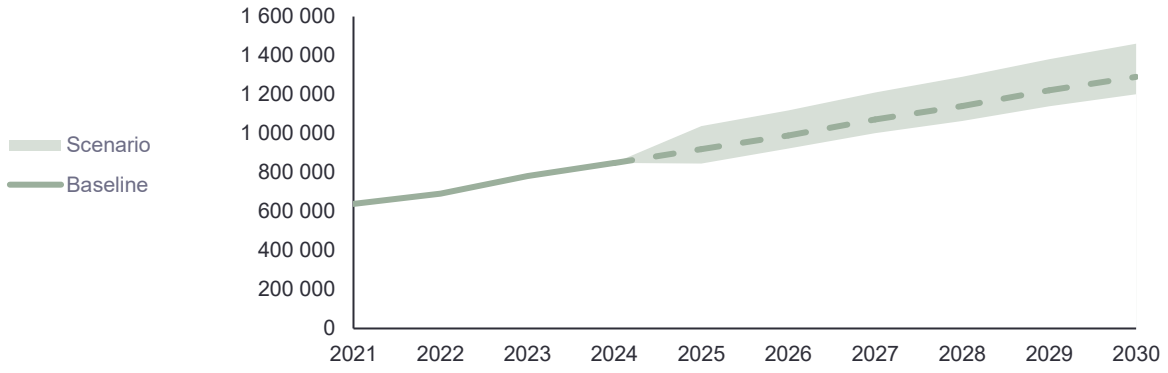
4.1.4 BRAKE DISCS

A. Market overview and demand context

The brake disc aftermarket is valued at R400–500 million (2024 prices), with demand forecast to reach approximately 1.5 million sets (6 million units) per annum by 2030. Demand is price-elastic (~0.75); a 20–30% price reduction could unlock 15–23% additional domestic demand. OEM channels supply approximately 300,000 sets per annum; the remaining 700,000+ sets are served by independent aftermarket channels.

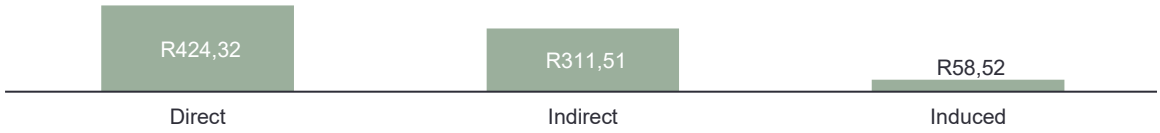
OEMs source discs locally for on-line fitment. Independent aftermarket retailers predominantly source from imports due to the 20–30% landed cost advantage. Demand concentrates on a manageable set of high-volume models.

Figure 22: Forecasted brake disc aftermarket size (# of sets)



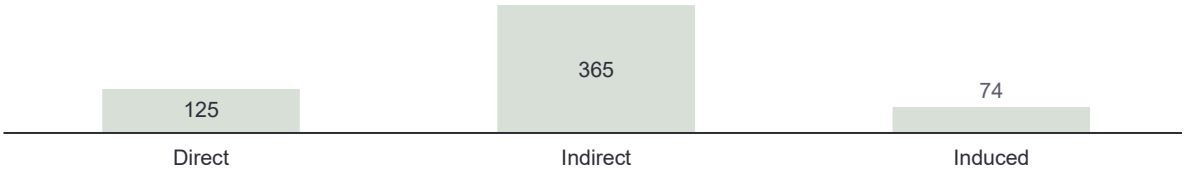
Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 23: GDP contribution of the brake disc market (R millions)



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 24: FTE equivalent job contributions for brake discs



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

B. Value chain and local manufacturing capability

The value chain starts with cast iron or carbon composite raw material extraction and casting, followed by precision machining, anti-corrosion coating, and quality testing. Distribution flows to OEM assembly or aftermarket supply. End-of-life discs are typically recycled as scrap metal.

South Africa has established local capacity — notably Auto Industrial and Girlock — supplying portions of OEM and aftermarket demand. Localisation requires targeted scale-up rather than greenfield investment, constrained primarily by energy intensity and tooling/IP barriers.

C. Key component specifications

The table below presents specifications for the top-volume vehicle models driving aftermarket demand for this component.

Table 16: Component specifications for brake discs

VEHICLE	FRONT ROTOR DIAMETER	FRONT ROTOR THICKNESS	REAR ROTOR DIAMETER	REAR ROTOR THICKNESS
Toyota Quantum	285 mm	28 mm		
Hyundai i20	256–280 mm	22 mm (min 20 mm)	262 mm	10 mm (min 8.4 mm)
Kia Rio	256–280 mm	22 mm (min 19–20 mm)	262 mm	10 mm (min 8.4 mm)
BMW 3 Series	300–340 mm (std)	~30 mm (min 20.4 mm)	294–320 mm	~22 mm (min 17.4 mm)
Mercedes C-Class	320–360 mm	~28 mm	300–320 mm	~22 mm
Ford Ranger	311 mm	~28 mm (min 23 mm)	308 mm	~20 mm (min 9 mm)
Toyota Hilux	297 mm	25–28 mm (min 23 mm)	Drum or 295 mm disc	
Toyota Corolla	255–275 mm	25 mm (min 23 mm)	258–269 mm	9 mm (min 8 mm)
Nissan Hardbody	~280 mm (varies)	~26 mm (min ~22 mm)		
VW Polo	256–288 mm	22–25 mm (min 19 mm)	230–232 mm	9 mm (min 7 mm)
VW Polo Vivo	256 mm typical	22–25 mm (min 19 mm)		
Suzuki Swift	255 mm	22 mm (min ~20 mm)	230 mm	9 mm (min ~8 mm)

Source: (Kmsheidelberg, 2005), (Garage Wiki, 2018), (Garage wiki, 2017)

D. Applicable quality and safety standards

- **ECE R90** — Mandatory for replacement brake discs; ensures OEM performance within a ±15% variance band
- **SABS standards** — Local certification aligned with ECE and ISO norms for material integrity and dimensional accuracy
- **ISO 6310–6313** — Test methods for friction materials and performance evaluation applicable to discs
- **ARS 1595:2021** — African regional standard; adopts UNECE R13/R13H for braking system requirements

E. Price competitiveness and cost analysis

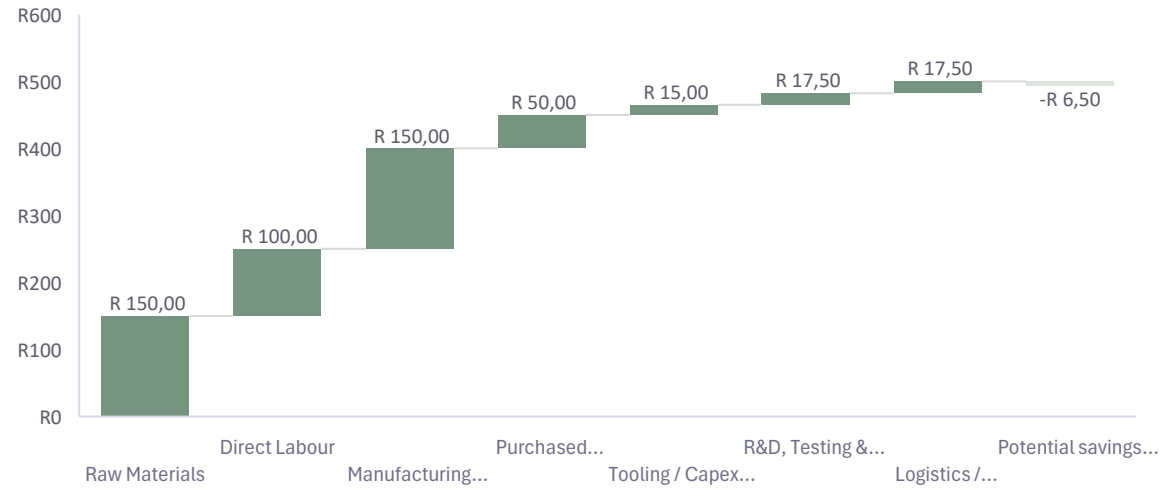
Import price gap

Imported brake discs land 20–30% below the lowest-cost local production alternative. The gap is driven by scale, lower raw material costs overseas, and lower energy costs — not by inferior quality in many cases.

Price sensitivity:

Price-sensitive — a 1% price increase yields a 0.75% reduction in volumes.

Figure 25: Price breakdown for brake discs



Own analysis of data from stakeholder engagements, and information from (Autoride, 2025; Mill Auto Parts, n.d.; GeoMechanic, n.d.)

Cost–benefit of price parity mechanism:

- At a median aftermarket price of R1,500/set and achievable savings, the residual cost gap after internal optimisation remains ~R375/set.
- Price-parity requires targeting the highest-volume SKUs where tooling investment can be amortised over sufficient replacement cycles.
- Cost–benefit is more favourable than for pads given higher per-unit values, but hinges on infrastructure reliability and tooling access.

Localisation is feasible for high-volume SKUs where tooling cost can be justified. The business case depends critically on cost stability — particularly electricity and infrastructure reliability — and on resolving tooling and IP barriers for aftermarket-grade designs.

F. Enabling conditions for successful localisation

Policy and regulatory interventions:

- Address infrastructure instability — power and water outages force molten-metal dumps and 8–10-hour restarts, directly raising unit costs
- Support reverse engineering and IP-independent tooling pathways for common aftermarket disc specifications
- Enforce import quality standards to prevent sub-standard discs undercutting compliant local producers

Industry-led competitiveness improvements:

- Focus on highest-volume SKUs with the longest replacement cycles to justify tooling amortisation
- Invest in process stability measures: backup power for furnace operations, predictive maintenance, and scrap-rate reduction
- Explore shared tooling arrangements across manufacturers for common disc specifications to reduce per-unit tooling cost

G. Future demand considerations

Similar EV and Chinese/Indian brand dynamics apply to discs as to brake pads — see Section 4.1.3 for the full analysis, which is not repeated here.

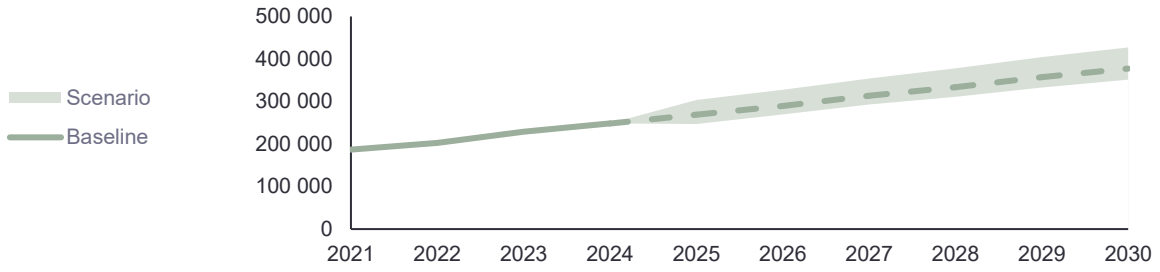
3.4.5 BRAKE SHOES AND DRUMS

A. Market overview and demand context

The brake shoes and drums aftermarket is valued at R200–300 million (2024 prices), with volumes of 300,000–700,000 sets per annum. Demand is concentrated in the ageing vehicle parc — particularly older commercial vehicles and taxis that still use drum brakes on rear axles. This is a more mature and modestly declining segment compared to brake pads and discs.

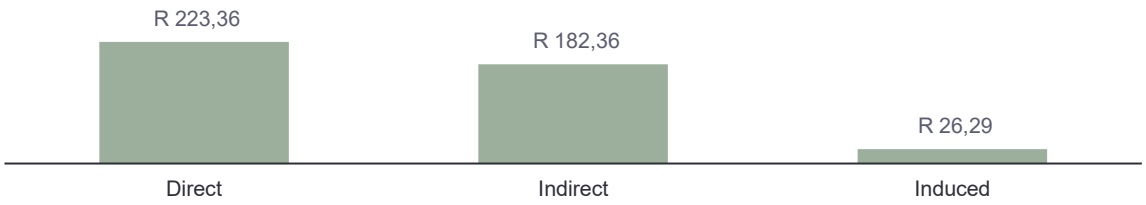
Demand is moderate and concentrated in a subset of the parc. Replacement volumes are lower and more fragmented than brake pads, limiting economies of scale for dedicated tooling.

Figure 26: Forecasted brake shoes and drums aftermarket size (# of sets)



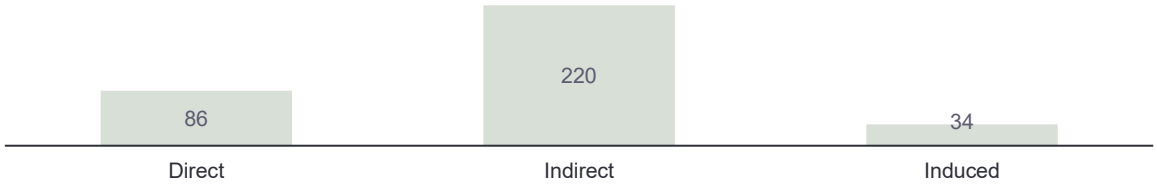
Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 27: GDP contribution of the brake shoe and drum market (R millions)



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 28: FTE equivalent job contributions for the brake shoe and drum market



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

B. Value chain and local manufacturing capability

Drums are cast iron components requiring casting, precision machining, and surface treatment. Shoes combine steel backing plates with friction material bonded or riveted to the plate. Distribution follows the same OEM and aftermarket channels as other brake components.

Baseline manufacturing capability exists in South Africa, with some local producers supplying both segments. Scale-up is possible but constrained by lower overall volumes than pads or discs.

C. Key component specifications

The table below presents specifications for the top-volume vehicle models driving aftermarket demand for this component.

Table 17: Component specifications for brake shoes and drums

VEHICLE	COMMON FITMENT	ENGINE OPTIONS	TRANSMISSION	DIMENSIONS
Toyota Hilux / Toyota Quantum	2.8 GL Bus (11–14-Seater), SLWB Panel Van	130 kW @ 3400 rpm / 420 Nm @ 1400–2600 rpm	6-speed manual or automatic	Length ~5380 mm Width ~1880 mm Height ~2285 mm
Hyundai i20	Hatchback (Premium, Executive, N-Line)	i. 1.2L Petrol (61 kW, 114 Nm) ii. 1.4L Petrol (73 kW, 133 Nm) iii. 1.0L Turbo (90 kW, 172 Nm)	5-speed manual / 6-speed auto / 7-speed DCT	Length ~3995 mm Width ~1775 mm Height ~1505 mm
Kia Rio	Hatchback (1.2L & 1.4L Petrol)	i. 1.2L (62 kW, 120 Nm) ii. 1.4L (73 kW, 135 Nm)	5-speed manual / 6-speed auto	
Toyota Nissan BMW 3 Series	Sedan (320i, 320d, 330i, M340i)	i. 320i: 2.0L Turbo Petrol (135 kW, 300 Nm) ii. 320d: 2.0L Turbo Diesel (140 kW, 400 Nm) iii. 330i: 2.0L Turbo Petrol (190 kW, 400 Nm)	8-speed automatic	Length ~4713 mm Width ~1827 mm Height ~1440 mm

		iv. M340i: 3.0L Turbo Petrol (285 kW, 500 Nm)		
Ford Ranger	Double Cab (XL, XLT, Wildtrak, Raptor)	i. 2.0L Bi-Turbo Diesel (154 kW, 500 Nm) ii. 3.0L V6 Diesel (184 kW, 600 Nm) iii. 3.0L V6 Petrol (Raptor)	6-speed manual / 10-speed auto	Length ~5350 mm Width ~1918 mm Height ~1886 mm

Source: (Autodoc, 2025), (CarAraC, 2025)

D. Applicable quality and safety standards

These shoes and drums (and brake parts in general) typically meet the following safety standards:

- **ISO 6312:2010**: Specifies the shear test procedure for drum brake shoe assemblies and disc brake pads. It measures the bond strength between the friction lining and the shoe carrier to ensure durability and safety[51].
- **ECE R90:** Requires replacement brake shoes and drums to stay within ±15% friction performance tolerance compared to OEM parts[52].
- **SAE J2986:** Provides a common method for measuring wear of friction materials (brake shoes) and mating parts (drums).
- **ARS 1595:2021 (African Regional Standard)** (Vehicle Homologation) adopts UNECE R13 / R13H for braking-system requirements[53]**.**

E. Price competitiveness and cost analysis

Import price gap

Imported shoes and drums typically land ~30% below local production costs, driven by the same structural factors as other brake components — scale, raw material costs, and freight efficiency from Asian producers.

Price sensitivity

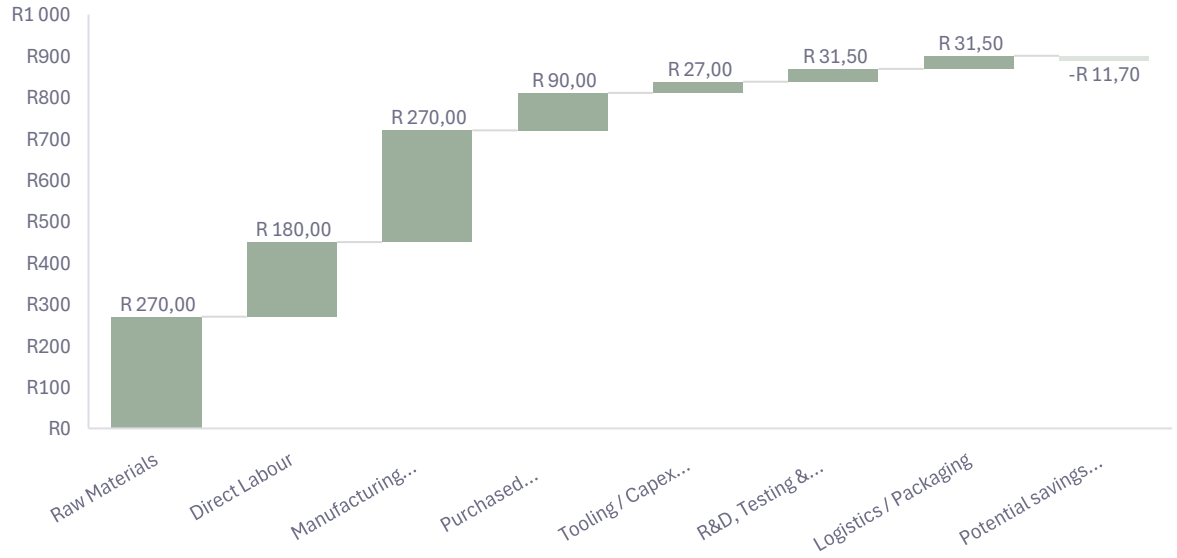
Moderately price-sensitive, consistent with other brake components.

[51] (International Organization for Standardization, n.d.)

[52] (6th Gear Automotive, n.d.)

[53] (African Organization for Standardisation, 2025) (African Organisation for Standardisation, 2021)

Figure 29: Price breakdown for brake drums and shoes



Own analysis of data from stakeholder engagements, and information from (Autoride, 2025; Mill Auto Parts, n.d.; GeoMechanic, n.d.)

Cost–benefit of price parity mechanism:

- The cost differential per set is meaningful but the small market size limits the scale of any subsidy requirement.
- Selective localisation focused on the highest-volume derivative types (e.g., Toyota Quantum, Hyundai H100) is more viable than broad product coverage.
- Demand aggregation — for instance, fleet procurement programmes — could improve the business case by providing volume certainty.

Broad localisation is not justified given fragmented volumes. Selective localisation of dominant derivatives, combined with demand aggregation through fleet and taxi procurement channels, represents the most viable pathway.

F. Enabling conditions for successful localisation

Policy and regulatory interventions:

- Explore designation of brake shoes and drums for government and public transport fleet procurement to create predictable volume pools
- Enforce quality and safety standards on imported products to ensure like-for-like competition

Industry-led competitiveness improvements:

- Focus on the highest-volume derivatives — particularly for taxi and commercial vehicle models — to justify tooling
- Explore demand aggregation partnerships with fleet operators and taxi associations to provide volume predictability
- Share tooling investment across brake component families where feasible to reduce per-unit amortisation cost

G. Future demand considerations

Drum brake systems are gradually being replaced by disc brakes on newer vehicles. Demand will therefore trend downward over time as the ageing parc is replaced. Medium-term stability is supported by the persistence of older commercial vehicles and taxis in the South African parc.

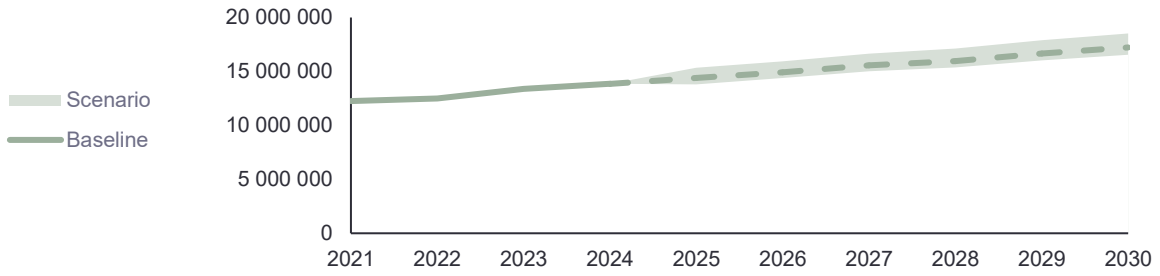
4.2.5 SPARK PLUGS

A. Market overview and demand context

The spark plug aftermarket is valued at R400–600 million (2024 prices), with volumes of 1.4–1.7 million sets per annum (10–15 million individual units). Demand is relatively price-sensitive — a 1% price increase yields a 0.38% reduction in volumes. The 20% import price advantage is narrow relative to most other components, and South Africa's largest manufacturer already holds 80–90% domestic market share.

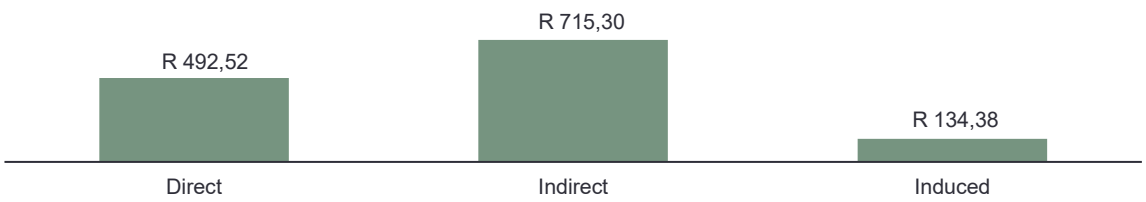
OE supply accounts for approximately 3–5 million units per annum. The remaining 7–10 million units are covered by independent aftermarket channels. One generic specification accounts for approximately 20% of volumes sold domestically. The global spark plug market is projected at $6.73 billion by 2025 (4.3% CAGR), driven by ICE vehicle parc expansion and aftermarket replacement demand.

Figure 30: Forecasted spark plugs aftermarket size (# of sets)



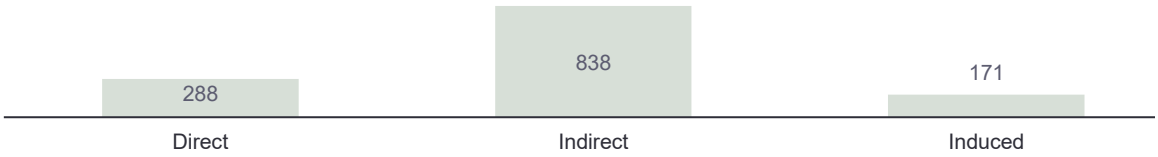
Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 31: GDP contribution of the spark plugs market (R millions)



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa, n.d.), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 32: FTE equivalent job contributions for spark plugs



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

B. Value chain and local manufacturing capability

Raw materials include metals (nickel, copper, platinum, iridium) and ceramics for insulators. Components are manufactured separately — electrodes, shells, ceramic insulators — and assembled into complete spark plugs. Local production is limited to assembly, with the ceramic insulator produced exclusively at two global facilities (Japan and Brazil). All tooling is sourced from Japan.

Assembly capability exists, with the leading manufacturer producing 20–25 million units per annum across four lines. Capability deepening (not full manufacturing) is the localisation pathway given ceramic insulator constraints.

C. Key component specifications

The table below presents specifications for the top-volume vehicle models driving aftermarket demand for this component.

Table 18: Component specifications for spark plugs

VEHICLE	COMMON FITMENT	THREAD SIZE	THREAD LENGTH	HEIGHT (OVERALL)	HEX SIZE (THICKNESS)
Volkswagen Polo	NGK ZFR6T-11G, Bosch FR7HC+, Denso KJ20DR-M11	M14 × 1.25	19 mm	~85 mm	16 mm
Volkswagen Polo Vivo	Bosch FR7HE02, FR6LES, FR6LI332S	M14 × 1.25	19 mm	~85 mm	16 mm
Toyota Corolla	Denso Iridium Long Life, NGK Iridium IX	M12 or M14 (varies by engine generation)	26.5 mm	~95 mm	16 mm
Toyota Quantum	Denso Iridium or Platinum, NGK equivalents	M14 × 1.25	19 mm	~85–90 mm	16 mm
Toyota C Toyota Hilux	1. Denso Iridium Tough (IKH20TT) 2. NGK Iridium IX (LFR6AIX-11)	M14 × 1.25	19 mm	~85–90 mm	16 mm

D. Applicable quality and safety standards

Spark plugs (and ignition systems in general) typically meet the following safety standards[54]:

- **ISO 11565 (Road vehicles - Spark-plugs -Test methods and requirements):** Specifies mechanical and electrical performance requirements for spark plugs used in spark-ignition engines.
- **ISO 28741 (Road vehicles - Spark plugs and their cylinder head housings - Basic characteristics and dimensions):** Defines basic characteristics and dimensions for spark plugs and their housings and ensures proper fitment and compatibility to prevent mechanical failure or leakage.
- **SAE Standards:** Cover heat rating classifications, pre-ignition resistance, and installation requirements and provide guidelines for uniform testing and performance verification to avoid engine damage or misfire.

E. Price competitiveness and cost analysis

Import price gap

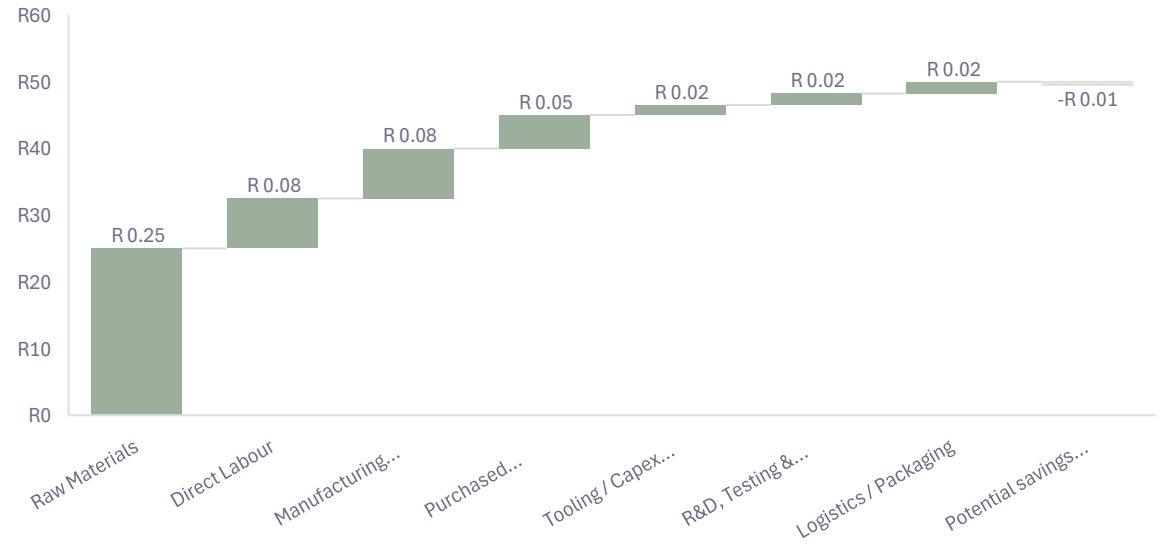
Imported spark plugs land approximately 20% below local production costs. The 10% import duty, combined with freight/logistics costs of 10–15%, means that efficient local assembly can approach price parity in practice. The leading local manufacturer already prices 10–20% below competitor prices.

Price sensitivity

Relatively price-sensitive — a 1% price increase yields a 0.38% reduction in volumes.

Figure 33: Price breakdown for spark plugs

[54] (International Organization for Standardization, n.d.); (International Organization for Standardization, n.d.)



Own analysis of data from stakeholder engagements

Cost–benefit of price parity mechanism:

- At a median price of R50/unit and achievable savings of ~R0.65, the residual gap is ~R5.35/unit.
- Price-parity with a 10% local premium requires ~R5.35/unit, totalling ~R54 million per annum.
- The resulting demand uplift of ~R23 million is meaningful relative to the modest subsidy requirement.

The price gap is relatively manageable, and the cost–benefit ratio is more favourable than for most other Tier 2 components. The priority actions are production efficiency improvements, stable trade administration, and AfCFTA export development rather than direct subsidy.

F. Enabling conditions for successful localisation

Policy and regulatory interventions:

- Maintain stable standards enforcement and predictable trade administration — the leading manufacturer is sensitive to regulatory uncertainty
- Ensure 10% import duty is consistently applied and not eroded by misclassification
- Support AfCFTA export development: Africa imports USD 88 million of spark plugs annually, of which ~USD 50 million is accessible to South African exporters

Industry-led competitiveness improvements:

- Improve production scheduling to reduce long changeover periods — currently requiring two months of stock-building after each tooling reset
- Increase line utilisation toward the 6-million-unit-per-line capacity to reduce unit costs
- Expand part number range incrementally (currently ~5–6 new numbers per year approved through Japan) to capture growing Chinese and Indian brand demand
- Develop AfCFTA export strategy to access the ~USD 50 million addressable African market

G. Future demand considerations

Spark plugs are used exclusively in ICE and hybrid vehicles. As EV adoption grows globally, long-run demand will decline. However, in South Africa and across Africa more broadly, ICE vehicles will

dominate through at least 2030. The large and growing African parc — combined with AfCFTA market access — provides a meaningful export opportunity that offsets domestic demand limitations.

4.2 Tier 2 / Moderate Feasibility Components

4.2.1 AIR FILTERS

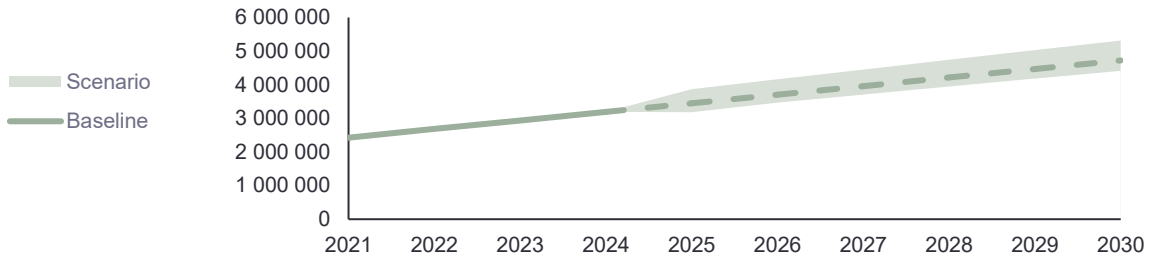
A. Market overview and demand context

Air filters represent one of the highest-volume aftermarket segments, with 3.4–4.7 million units sold per annum and a market value of approximately R800 million (2024 prices). Replacement typically occurs every one to three years, making this a high-turnover, predictable-demand category. The aftermarket is forecast to grow as parc size increases.

OE volumes account for approximately 800,000 units per annum. The remaining 3–4 million units are served by the independent aftermarket. Demand concentration among high-replacement models (Toyota Quantum, Hilux, Ford Ranger, VW Polo family) makes targeted tooling investment viable for the top-volume SKUs.

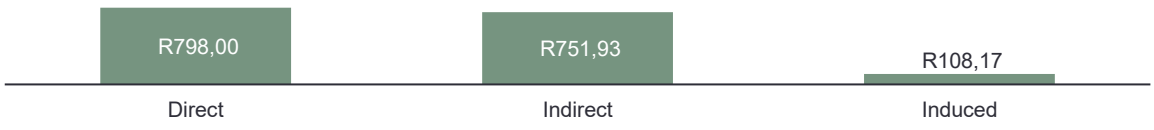
Imports dominate due to a substantial price advantage. Local manufacturers retain assembly capability but cannot currently compete at the low-cost price points that dominate the aftermarket.

Figure 34: Forecasted air filter aftermarket size (# of units)



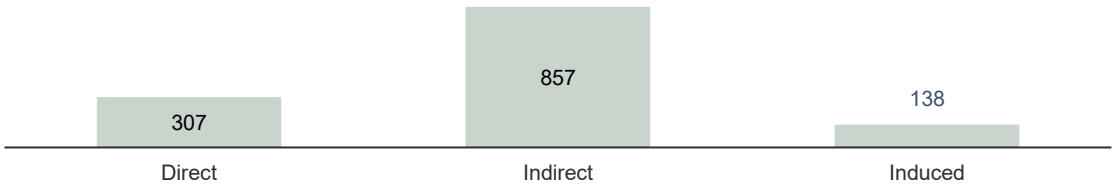
Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 35: GDP contribution of the air filter market (R millions)



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 36: FTE equivalent job contributions for air filters



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

B. Value chain and local manufacturing capability

Filter media (cellulose-based paper or cellulose-synthetic blends) is pleated and assembled into housings with metal and rubber components. Local manufacturers retain assembly capability; the critical constraint is dependence on imported filter media.

Assembly capability exists in South Africa. Localisation is a scale-up and cost-competitiveness challenge rather than greenfield. Critical input media must be imported.

C. Key component specifications

The table below presents specifications for the top-volume vehicle models driving aftermarket demand for this component.

Table 19: Component specifications for air filters

VEHICLE	AIR FILTER DIMENSIONS
Toyota Quantum 2.5 D-4D	310 × 280 × 80 mm
Nissan 1400 Bakkie 1.4	170 mm (round)
Opel Corsa Utility 1.4	211 × 135 × 33 mm
Toyota Hilux (common spec)	300 × 230 × 50 mm
Ford Ranger (common spec)	320 × 230 × 50 mm
VW Polo	295 × 200 × 35 mm
VW Polo Vivo	375 × 192 × 42 mm
Toyota Corolla	270 × 200 × 40 mm

Source: (Autodoc, 2025), (CarAraC, 2025)

D. Applicable quality and safety standards

- **ISO 16890** — Classification of filters based on particulate matter removal efficiency (ePM1, ePM2.5, ePM10)
- **ISO 9001:2015** — Quality management system standard widely adopted by South African filter manufacturers
- **UNECE Regulations via NRCS Compulsory Specifications** — ensures compliance with international safety and environmental standards

E. Price competitiveness and cost analysis

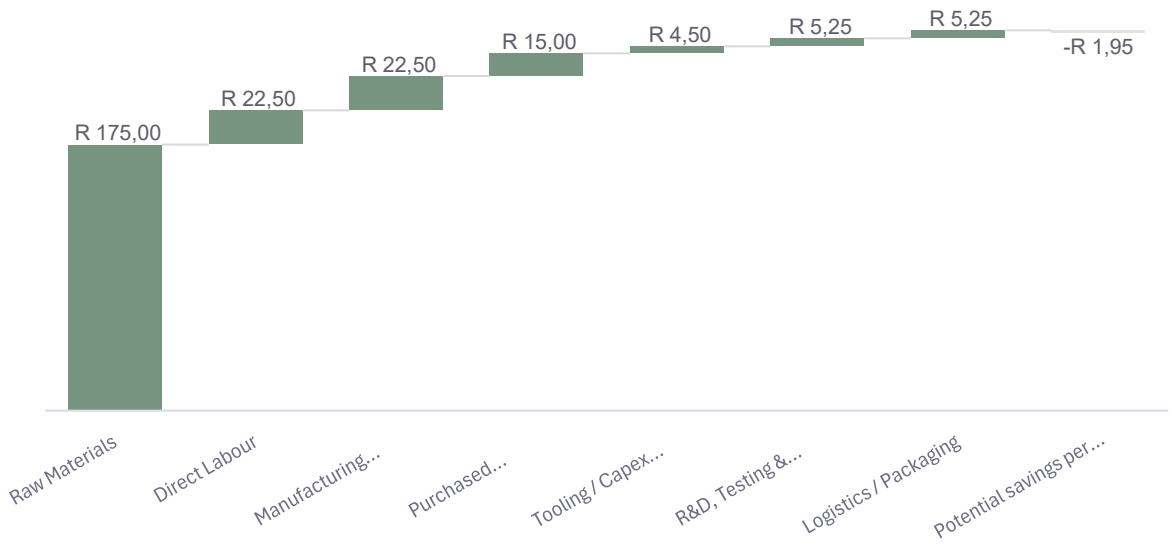
Import price gap

Imported air filters undercut local products by over 50%. The gap reflects scale advantages, subsidised production costs overseas, and dependence on imported filter media that raises input costs for local assemblers. Anti-dumping protection is currently absent for this category.

Price sensitivity

Not directly provided; broadly consistent with other filter categories.

Figure 37: Price breakdown for air filters



Own analysis of data from stakeholder engagements, and information from (Autoride, 2025; Mill Auto Parts, n.d.; GeoMechanic, n.d.)

Cost–benefit of price parity mechanism:

- At a lower-end price of R250/unit and achievable savings of ~R1.95, the residual gap is approximately R185/unit.
- Price-parity with a 10% local premium would require a subsidy of ~R179/unit, totalling ~R618 million per annum across market volumes.
- The resulting demand uplift of ~R206 million does not cover the subsidy cost — a net negative return.

- Direct subsidy is not cost-effective. The priority interventions are anti-dumping protection and tooling support — each fully automated production line costs USD 60,000–200,000 but can produce 2–3 million units per annum.

F. Enabling conditions for successful localisation

Policy and regulatory interventions:

- Introduce anti-dumping duties on low-cost air filter imports — currently no protection exists for this category
- Provide tooling allowances or co-investment support given the inhibitive cost of production tooling (USD 60,000–200,000 per line)
- Consider electricity cost support per unit produced, given the high overhead contribution of energy costs
- Strengthen compulsory specification enforcement to remove sub-standard imports from the market

Industry-led competitiveness improvements:

- Build scale via export into AfCFTA markets to improve unit economics
- Invest in SKU-agile tooling capability to service the growing range of filter derivatives efficiently
- Stabilise overheads through backup power and water mitigation to curb cost inflation
- Focus on quality differentiation in upper market segments rather than competing at the lowest price points

G. Future demand considerations

EVs eliminate the need for engine air filtration entirely. As EV adoption grows, long-run demand for this component will decline structurally. In the transition period, ICE vehicle dominance nationally and regionally will sustain demand, but the long-term trajectory for engine air filters is negative. Medium-term investment decisions should be made with this structural decline in mind.

4.2.2 CABIN AIR FILTERS

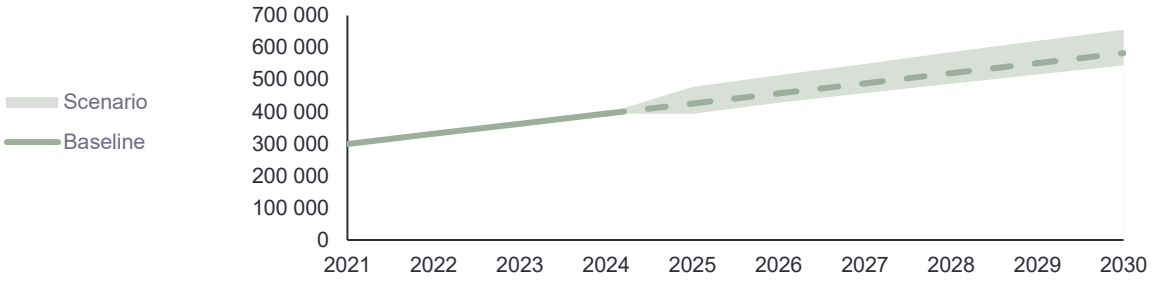
A. Market overview and demand context

Air filters represent one of the highest-volume aftermarket segments, with 3.4–4.7 million units sold per annum and a market value of approximately R800 million (2024 prices). Replacement typically occurs every one to three years, making this a high-turnover, predictable-demand category. The aftermarket is forecast to grow as parc size increases.

OE volumes account for approximately 800,000 units per annum. The remaining 3–4 million units are served by the independent aftermarket. Demand concentration among high-replacement models (Toyota Quantum, Hilux, Ford Ranger, VW Polo family) makes targeted tooling investment viable for the top-volume SKUs.

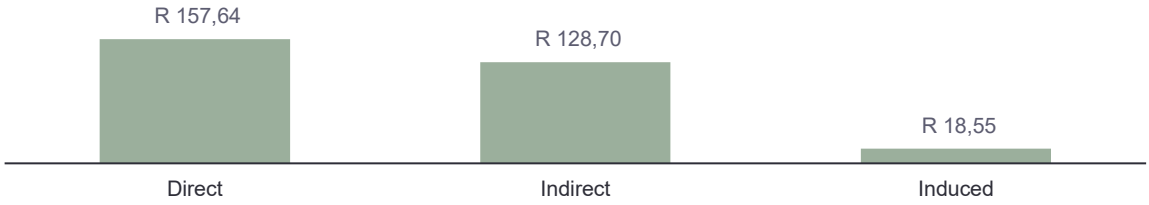
Imports dominate due to a substantial price advantage. Local manufacturers retain assembly capability but cannot currently compete at the low-cost price points that dominate the aftermarket.

Figure 38: Forecasted cabin air filters aftermarket size (# of sets)



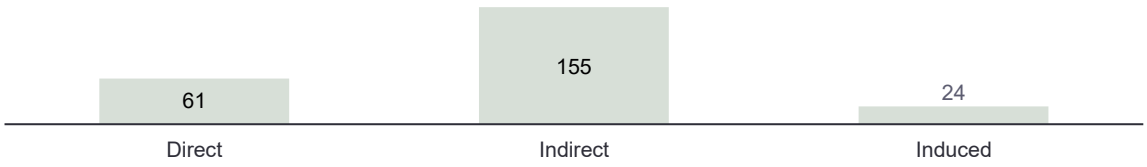
Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 39: GDP contribution of the cabin filter market (R millions)



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 40: FTE equivalent job contributions for cabin air filters



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

B. Value chain and local manufacturing capability

Filter media (cellulose-based paper or cellulose-synthetic blends) is pleated and assembled into housings with metal and rubber components. Local manufacturers retain assembly capability; the critical constraint is dependence on imported filter media.

Assembly capability exists in South Africa. Localisation is a scale-up and cost-competitiveness challenge rather than greenfield. Critical input media must be imported.

C. Key component specifications

The table below presents specifications for the top-volume vehicle models driving aftermarket demand for this component.

Table 20: Component specifications for cabin air filters

VEHICLE	COMMON FITMENT	LENGTH	HEIGHT	THICKNESS
Toyota Hilux	Behind glove box	119.3–143.5 mm	67.7–77.1 mm	16.8–17 mm
Toyota Fortuner	Behind glove box	~225 mm	~189 mm	~43 mm
VW Polo	Under dashboard	131–146 mm	52–54.7 mm	17–19.7 mm
Ford Ranger	Behind glove box	147.9–194 mm	52–68 mm	15.6–17 mm
Isuzu D-Max	Behind glove box	~225 mm	~190 mm	~30 mm

Source: (Autodoc, 2025), (CarAraC, 2025)

D. Applicable quality and safety standards

These cabin air filters (and filters in general) typically meet the following standards[55]:

- **DIN 71460-1 & 71460-2:** German standards for cabin air filter pressure loss, particle efficiency, and gas absorption capacity.
- **SAE standards:** Historically addressed cabin particulate filtration but have largely been replaced by ISO norms.
- **ISO standards**: Defines testing for cabin air filters, covering particulate filtration efficiency, gas adsorption capability, dust holding capacity, and pressure drop to ensure clean air inside vehicles.

D. Price competitiveness and cost analysis

Import price gap

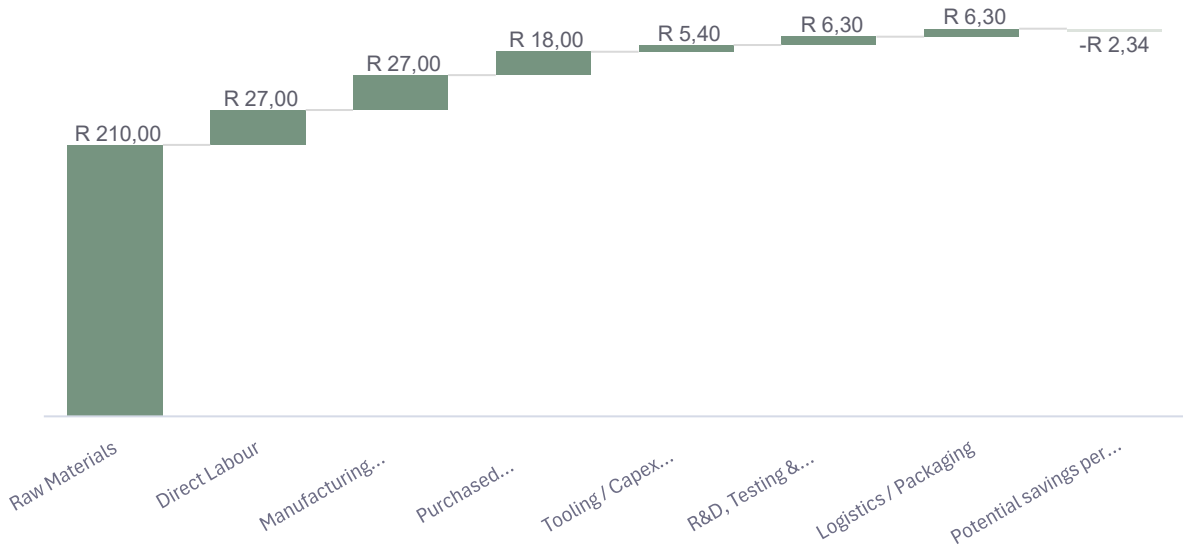
Imported air filters undercut local products by over 50%. The gap reflects scale advantages, subsidised production costs overseas, and dependence on imported filter media that raises input costs for local assemblers. Anti-dumping protection is currently absent for this category.

Price sensitivity

Not directly provided; broadly consistent with other filter categories.

[55] (International Organization for Standardization, n.d.); (International Organization for Standardization, n.d.); (MicronAir, 2019)

Figure 41: Price breakdown for cabin air filters



Own analysis of data from stakeholder engagements, and information from (Autoride, 2025; Mill Auto Parts, n.d.; GeoMechanic, n.d.)

Cost–benefit of price parity mechanism:

- At a lower-end price of R250/unit and achievable savings of ~R1.95, the residual gap is approximately R185/unit.
- Price-parity with a 10% local premium would require a subsidy of ~R179/unit, totalling ~R618 million per annum across market volumes.
- The resulting demand uplift of ~R206 million does not cover the subsidy cost — a net negative return.
- Direct subsidy is not cost-effective. The priority interventions are anti-dumping protection and tooling support — each fully automated production line costs USD 60,000–200,000 but can produce 2–3 million units per annum.

F. Enabling conditions for successful localisation

Policy and regulatory interventions:

- Introduce anti-dumping duties on low-cost air filter imports — currently no protection exists for this category
- Provide tooling allowances or co-investment support given the inhibitive cost of production tooling (USD 60,000–200,000 per line)
- Consider electricity cost support per unit produced, given the high overhead contribution of energy costs
- Strengthen compulsory specification enforcement to remove sub-standard imports from the market

Industry-led competitiveness improvements:

- Build scale via export into AfCFTA markets to improve unit economics
- Invest in SKU-agile tooling capability to service the growing range of filter derivatives efficiently
- Stabilise overheads through backup power and water mitigation to curb cost inflation
- Focus on quality differentiation in upper market segments rather than competing at the lowest price points

G. Future demand considerations

EVs eliminate the need for engine air filtration entirely. As EV adoption grows, long-run demand for this component will decline structurally. In the transition period, ICE vehicle dominance nationally and regionally will sustain demand, but the long-term trajectory for engine air filters is negative. Medium-term investment decisions should be made with this structural decline in mind.

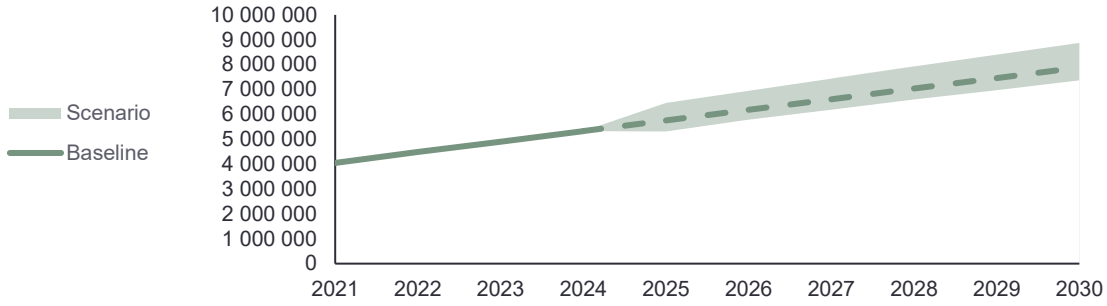
4.2.3 OIL FILTERS

A. Market overview and demand context

Oil filters are among the highest-volume individual components in the aftermarket, with 5.7–7.9 million units per annum and a market value of approximately R373 million (2024 prices). Replacement is mileage-based — every 8,000–12,000 km for conventional oil, or 16,000–24,000 km for synthetic oil. The aftermarket is forecast to reach approximately 7.9 million units by 2030.

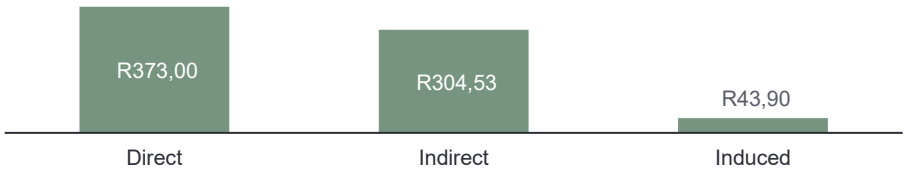
OE volumes account for approximately 1.8 million units per annum. The remaining 4.1+ million units are served by the independent aftermarket, where imports dominate at the lower price points.

Figure 42: Forecasted oil filters aftermarket size (# of sets)



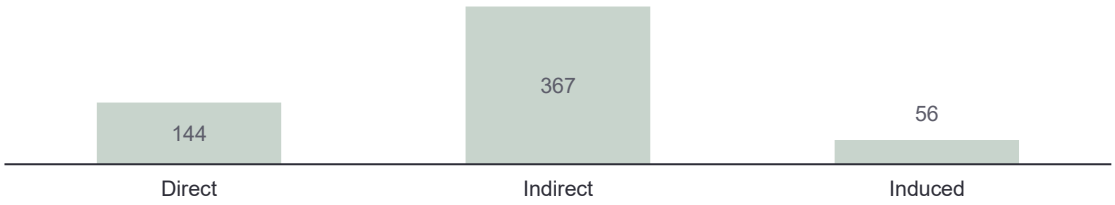
Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 43: GDP contribution of the oil filter market (R millions)



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 44: FTE equivalent job contributions for oil filters



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

B. Value chain and local manufacturing capability

Filter media (cellulose, synthetic, or micro-glass) is pleated and assembled into metal canisters (spin-on) or cartridges (element type) with rubber gaskets for sealing. Local manufacturers retain assembly capability but depend heavily on imported filter media and polyurethane foam.

Assembly capability exists — GUD Filters and MANN+HUMMEL supply OEM and aftermarket channels. Production viability is constrained by input costs and scale limitations rather than technical feasibility.

C. Key component specifications

The table below presents specifications for the top-volume vehicle models driving aftermarket demand for this component.

Table 21: Component specifications for oil filters

VEHICLE	OIL FILTER DIMENSIONS
Toyota Quantum 2.5 D-4D	76 × 85 (spin-on)
Nissan 1400 Bakkie 1.4	76 × 85 (spin-on)
Opel Corsa Utility 1.4	76 × 85 (spin-on)
Toyota Hilux (common spec)	76 × 85 (spin-on) or 65 × 70 (element)
Ford Ranger (common spec)	76 × 85 (spin-on) or 65 × 70 (element)
VW Polo	65 × 70 (element) or 76 × 85 (spin-on, older)
VW Polo Vivo	65 × 70 (element)
Toyota Corolla	76 × 85 (spin-on) or 65 × 70 (element)

D. Applicable quality and safety standards

These filters typically meet the following quality and safety standards[56]:

- **ISO 4548 (Methods of test for full-flow lubricating oil filters for internal combustion engines):** Specifies test methods for full-flow lubricating oil filters for internal combustion engines, including filtration efficiency, pressure resistance, and durability. **ARS 2041:2025** (Oil filters — Specification), harmonises with the ISO 4548 series.
- **ISO 9001:2015 (Quality Management System):** Widely adopted by South African filter manufacturers; guarantees consistent product quality, process control, and adherence to regulatory and customer requirements, ensuring reliability and performance under local conditions.
- **UNECE Regulations via NRCS Compulsory Specifications:** Enforced by South Africa's NRCS; ensures automotive components, including oil filters, meet international safety and environmental standards before market entry.

E. Price competitiveness and cost analysis

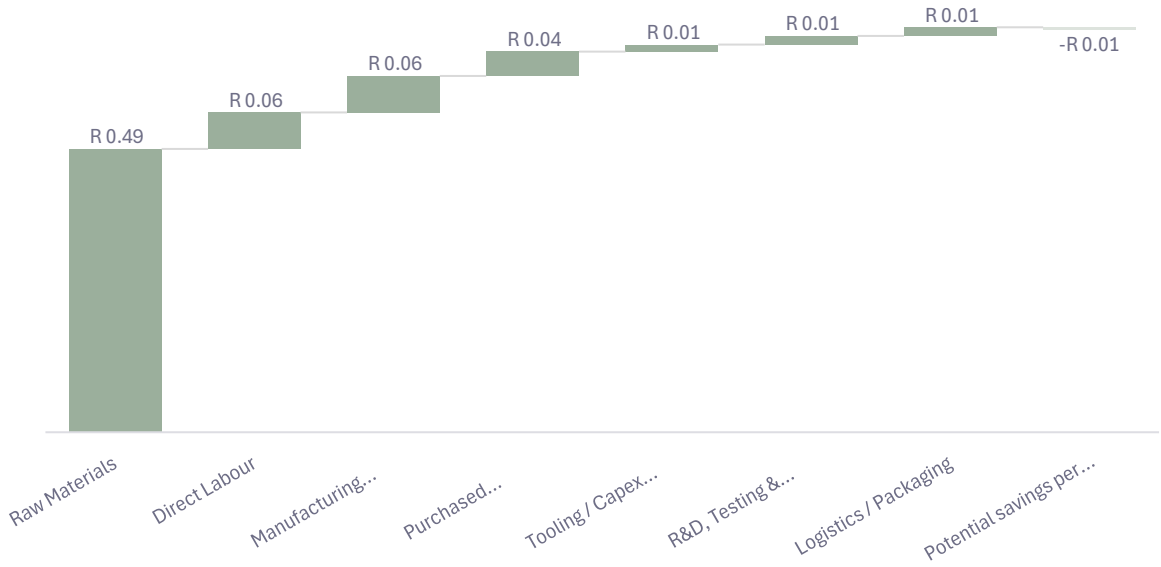
Import price gap

Low-cost imported oil filters land approximately 70% below locally produced filters. Higher-quality imports that meet the same standards as local products land approximately 20% below. The market is particularly vulnerable to "blind component" abuse — poor-quality media inside a standard housing is difficult for consumers to detect.

Price sensitivity

Modestly price-sensitive — a 1% price increase yields a 0.19% reduction in volumes.

Figure 45: Price breakdown for oil filters



Own analysis of data from stakeholder engagements

[56] (International Organization for Standardization, n.d.); (International Organization for Standardization, n.d.); (UNECE, 2018); (African Organization for Standardisation, 2025)

Cost–benefit of price parity mechanism:

- At a median price of R70/unit, the base-case cost differential is ~R69.45/unit.
- Price-parity with a 10% local premium requires ~R46.35/unit subsidy, totalling ~R216 million per annum.
- The resulting demand uplift of ~R51 million is well below the subsidy cost.
- Subsidy is not cost-effective. The primary interventions are quality standards enforcement — particularly technical specifications for filter media — and anti-dumping action to address subsidised low-cost imports.

F. Enabling conditions for successful localisation

Policy and regulatory interventions:

- Mandate technical specifications for oil filter media performance — currently "blind component" abuse allows sub-standard media inside compliant-looking housings
- Apply anti-dumping measures consistent with other filter categories
- Strengthen border compliance and misclassification detection

Industry-led competitiveness improvements:

- Focus on quality segments where the 20% price gap (rather than the 70% low-end gap) can be closed through performance differentiation
- Build export capability into AfCFTA markets to improve scale economics
- Invest in operational agility to manage the large number of oil filter variants efficiently

G. Future demand considerations

Oil filter demand is projected to decline as EV adoption increases — engine oil filter demand could fall by approximately 29% by 2030 according to global projections. In South Africa, ICE dominance will delay this decline, but medium-term investment decisions should account for the structural headwind. The transition reinforces the case for prioritising scale-building and AfCFTA export development in the near term.

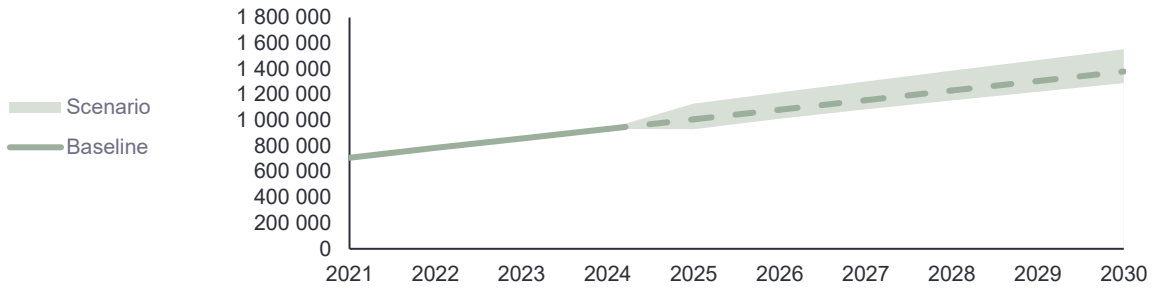
4.2.4 FUEL FILTERS

A. Market overview and demand context

The fuel filter aftermarket is valued at approximately R400 million (2024 prices), with volumes of 1–1.3 million units per annum. Demand is relatively price-sensitive — a 1% increase in price yields a 0.37% reduction in volumes. Demand is expected to remain stable while ICE vehicles dominate the parc, then decline as EV adoption grows.

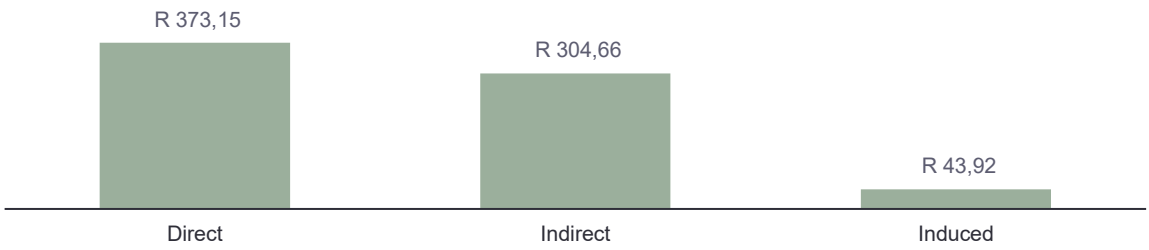
OE volumes account for approximately 400,000 units per annum. The remaining 500,000–900,000 units are served by the independent aftermarket. Fuel filters follow a similar cost trajectory to air filters, with imported media and infrastructure inefficiencies constraining local viability.

Figure 46: Forecasted fuel filters aftermarket size (# of units)



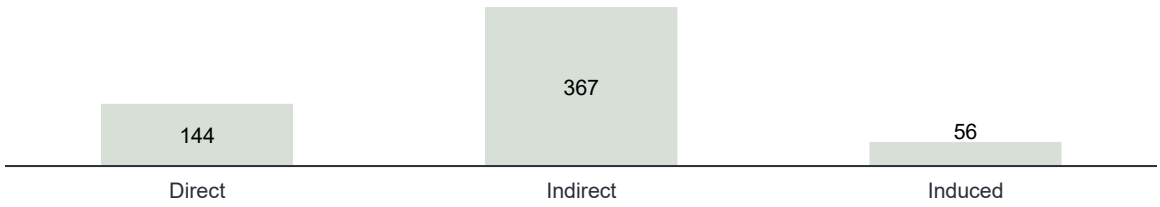
Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 47: GDP contribution of the fuel filter market (R millions)



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 48: FTE equivalent job contributions for fuel filters



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

B. Value chain and local manufacturing capability

Raw materials include filter media, metal housings, rubber seals, and plastic components. Assembly involves pleating media, moulding housings, and crimping, welding, and sealing into complete filter units. Local manufacturers retain assembly capability; OEM sourcing remains predominantly import-based.

Some assembly capability exists; localisation is a niche opportunity rather than a mass-market play. The cost and scale constraints mirror those of air and oil filters.

C. Key component specifications

The table below presents specifications for the top-volume vehicle models driving aftermarket demand for this component.

Table 22: Component specifications for fuel filters

VEHICLE	COMMON FITMENT	LENGTH	HEIGHT	THICKNESS
Toyota Hilux	Cartridge-style diesel filter (OE: 23390-0L010 / 0L030 / 0L041)	119.3–143.5 mm	67.7–77.1 mm	16.8–17 mm
Toyota Fortuner	Cartridge-style diesel filter (OE: 23390-0L070 / 23390-0E010)	~83 mm	~101 mm	~71 mm
VW Polo	Inline cylindrical filter for petrol engines	131–146 mm	52–54.7 mm	17–19.7 mm
Ford Ranger	Steel canister filter with 3 ports	~105 mm	~88 mm	~21 mm
Isuzu D-Max	Spin-on or cartridge diesel filter (OE: 8972889470)	~83 mm	~101 mm	~71 mm

Source: (Spareto, n.d.) (FiLong Filter, n.d.) (VK Filter, n.d.)

D. Applicable quality and safety standards

These fuel filters typically meet the following safety standards[57]:

- **ISO 19438 (multi-pass filtration test):** Applies to diesel and petrol fuel filters for internal combustion engines.
- **ISO 4020 (Road vehicles – fuel filters for diesel engines)** and is harmonised with **ARS 2043:2025:** Focuses on diesel engine fuel filters and includes tests for collapse/burst pressure, material compatibility, and life cycle performance.
- **SAE standards:** Covers qualification tests for fuel filters, including performance, integrity, and environmental resistance.

E. Price competitiveness and cost analysis

Import price gap

Imported fuel filters land approximately 65% below local production costs. Chinese manufacturers benefit from large-scale production and state support, making existing import duties insufficient to narrow the gap materially.

Price sensitivity:

Relatively price-sensitive — a 1% price increase yields a 0.37% reduction in volumes.

Figure 49: Price breakdown for fuel filters

[57] (International Organization for Standardization, n.d.); (International Organization for Standardization, n.d.); (SAE Mobilus, 2009) (African Organization for Standardisation, 2025)



Own analysis of data from stakeholder engagements, and information from (Autoride, 2025; Mill Auto Parts, n.d.; GeoMechanic, n.d.)

Cost–benefit of price parity mechanism:

- At a median price of R175/unit and achievable savings of ~R1.37, the residual gap is ~R112.63/unit.
- Price-parity with a 10% local premium requires ~R106/unit, totalling ~R245 million per annum.
- The resulting demand uplift of ~R92 million does not cover the subsidy cost.
- Subsidy is not cost-effective. Competitiveness should be maintained through quality standards, predictable trade administration, and incremental scale-building rather than direct price support.

F. Enabling conditions for successful localisation

Policy and regulatory interventions:

- Apply anti-dumping and enforcement measures consistently with other filter categories
- Improve customs compliance and close misclassification loopholes
- Strengthen quality standards to prevent sub-standard imported fuel filters from entering the market

Industry-led competitiveness improvements:

- Pursue scale through AfCFTA export markets in parallel with the domestic market
- Maintain operational agility to manage a moderate derivative range efficiently
- Invest in infrastructure resilience (backup power) to stabilise overhead costs

G. Future demand considerations

As with oil filters, fuel filter demand will decline structurally as EV adoption grows — EVs use no liquid fuel. South Africa's ICE-dominated parc provides a medium-term demand floor, but long-run investment decisions should reflect the declining trajectory for this component.

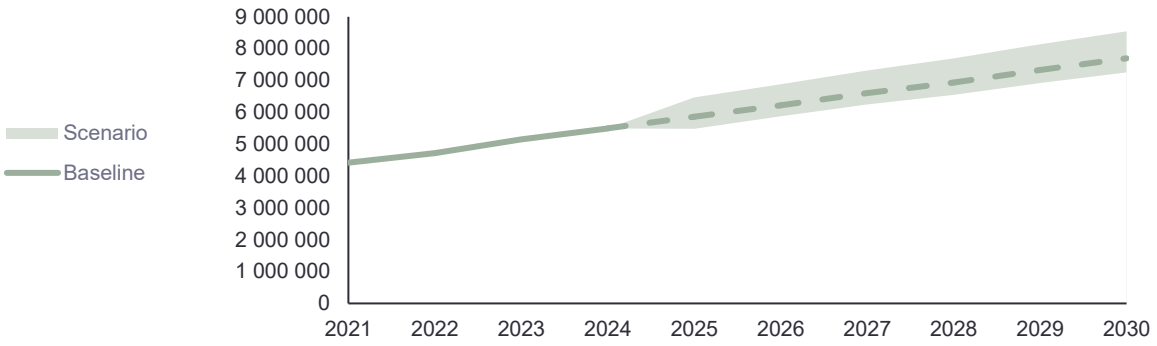
4.2.5 GASKETS (WITH A FOCUS ON SOFT GASKETS)

A. Market overview and demand context

The soft gasket aftermarket is valued at R800 million to R1 billion (2024 prices), with volumes forecast to reach approximately 7 million units per annum by 2030. Demand is modestly price-sensitive — a 1% price increase yields a 0.80% reduction in volumes. The segment is characterised by fragmented, somewhat erratic demand driven by age- and mileage-based replacement (typically every 80,000–160,000 km per seal, but with multiple seals per vehicle).

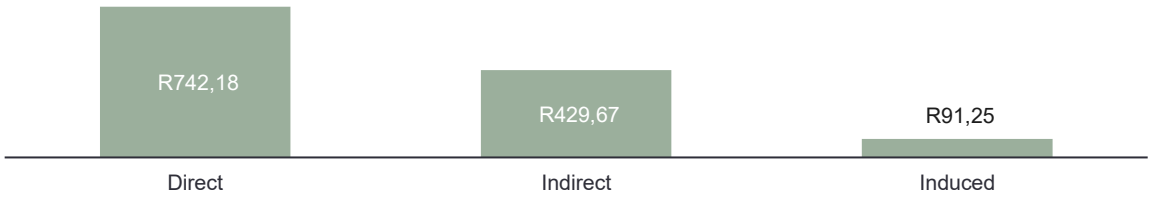
OE volumes account for approximately 2 million units per annum. The remaining 5+ million units are served by independent aftermarket channels. Concentrated demand exists in the taxi and bus sectors: the Quantum/minibus taxi parc (approximately 200,000 vehicles) implies ~800,000 rubber gasket replacements per annum; South Africa's 60,000 operational buses imply a further 1–1.5 million replacements. These two vehicle types alone account for an estimated ~R400 million (2024 prices) per annum.

Figure 50: Forecasted soft gasket aftermarket size (# of units)



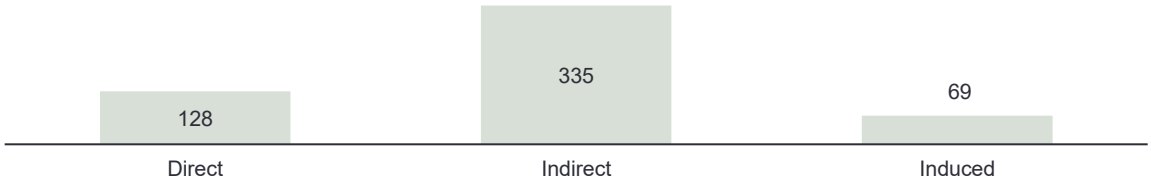
Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 51: GDP contribution of the soft gasket market (R millions)



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 52: FTE equivalent job contributions for soft gaskets



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

B. Value chain and local manufacturing capability

Soft gaskets are manufactured from synthetic rubbers (nitrile/NBR, EPDM, silicone) processed into seals, O-rings, and gasket sheets. Local manufacturing capability exists for rubber- and cork-based products; production processes are less capital-intensive than hard gaskets. Raw materials are predominantly imported.

Meaningful local capability exists for soft gaskets, particularly rubber- and cork-based products. Current local market share is approximately 10% — severely constrained by the 94% landed cost advantage of imports. No local production currently serves the aftermarket directly; supply is limited to OEM and Tier 1 channels in small quantities.

C. Key component specifications

N/A

D. Applicable quality and safety standards

These gaskets typically meet the following safety standards[58]:

- **ISO 3601 (Fluid power systems – O-rings)**: Defines dimensions, tolerances, and quality requirements for rubber sealing rings used in automotive and industrial applications.
- **ISO 2230 (Rubber products – Guidelines for storage)**: Ensures proper storage conditions to maintain gasket integrity over time.

E. Price competitiveness and cost analysis

Import price gap

Imported soft gaskets (including seals and O-rings) land at approximately R8/unit; locally manufactured equivalents cost approximately R135/unit — a 94% landed cost disadvantage. This gap reflects input cost differentials and scale economies that South Africa cannot currently access.

Price sensitivity

Modestly price-sensitive — a 1% price increase yields a 0.80% reduction in volumes.

[58] (International Organization for Standardization, n.d.); (International Organization for Standardization, n.d.)

Figure 53: Price breakdown for gaskets



Own analysis of data from stakeholder engagements

Cost–benefit of price parity mechanism:

- At a median price of R135/unit, the residual gap after savings is ~R133.24/unit.
- Price-parity with a 10% local premium requires ~R124.44/unit, totalling ~R65 million per annum.
- The resulting demand uplift of ~R20 million is well below the subsidy cost.

Broad localisation is not economically viable at current import price levels. The most promising pathway is designated procurement for public buses — a 50% local content designation for gaskets on state-procured buses could generate R70–100 million in annual revenue at less than 1% added cost per bus.

F. Enabling conditions for successful localisation

Policy and regulatory interventions:

- Pursue designation of soft gaskets in the government bus procurement framework at 50% local content — this represents a directly actionable, low-cost policy lever
- Explore auto-rebate type schemes to improve cost competitiveness for locally produced components
- Tariff and trade policy measures consistent with other rubber components

Industry-led competitiveness improvements:

- Focus on locally feasible gasket types where rubber processing capability already exists
- Secure volume and price intelligence from the taxi and bus sectors to build a credible demand planning base
- Partner with existing South African rubber processing capacity to access scale and reduce unit costs
- Expand retailer range progressively as verified demand volumes are established

7. Future demand considerations

Seals and gaskets will remain relevant in an EV-driven future, but their technical requirements will evolve — EVs require high-performance sealing for batteries, electric motors, and power electronics. South Africa's growing EV parc, though small today, will create demand for new seal types. Manufacturers should begin tracking EV-specific sealing requirements as a medium-term product development opportunity.

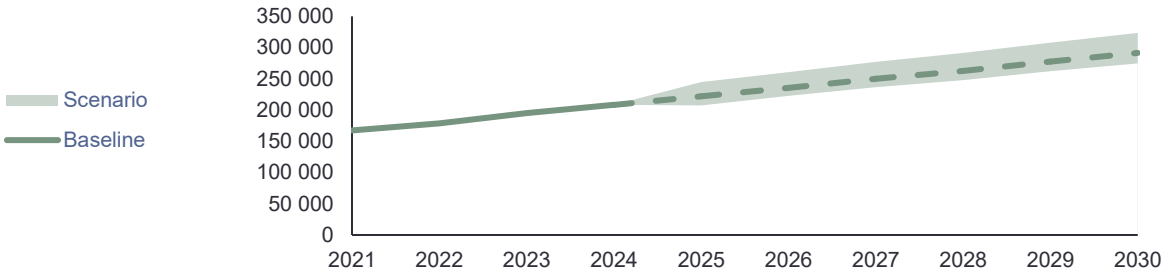
4.2.6 MATS AND FLOOR COVERINGS

A. Market overview and demand context

The rubber mats and floor coverings aftermarket is the smallest of the 12 components covered, valued at approximately R62 million (2024 prices) with volumes of 221,000–292,000 units per annum. Demand is highly price-sensitive — a 1% price increase yields a 0.98% reduction in volumes. Mats are not high-frequency replacement items; most consumers retain original mats for the vehicle's lifetime unless damaged.

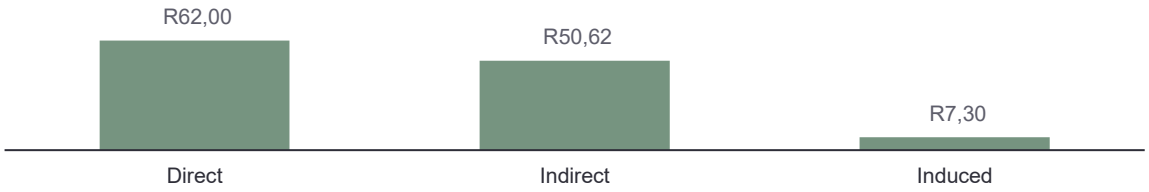
Given product universality, aftermarket mats can serve multiple vehicle models through a single SKU, reducing the derivative proliferation challenge that constrains other components. However, market size remains the primary constraint on investment viability.

Figure 54: Forecasted mats and floor coverings (rubber) aftermarket size (# of sets)



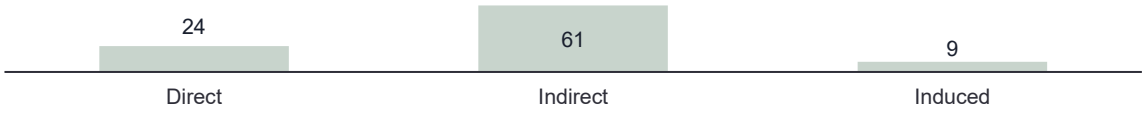
Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 55: GDP contribution of the mat and floor covering market (R millions)



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

Figure 56: FTE equivalent job contributions for mat and floor coverings



Own analysis of data from (ITC trade map, 2024), (Statistics South Africa), (AutoZone, 2025); (Goldwagen, 2025); (Midas, 2025) and stakeholder engagements

B. Value chain and local manufacturing capability

Mats are manufactured from non-cellular vulcanised rubber compounds — natural rubber blends, SBR, and EPDM — with additives for flexibility, abrasion resistance, and thermal stability. Many aftermarket mats combine rubber with textile inserts. Local manufacturing capability exists for standardised and universal products.

Local capability exists, particularly for rubber-based mats. The technical case for production is straightforward; the constraint is market linkages and volume certainty rather than manufacturing feasibility. This is most appropriately an SMME-scale opportunity rather than a large industrial play.

C. Key component specifications

N/A

D. Applicable quality and safety standards

SABS standards for vulcanised rubber compounds used in automotive applications.

E. Price competitiveness and cost analysis

Import price gap

Imported mats land approximately 60% below locally produced alternatives (R120 vs R300 per set). The gap reflects low global raw material prices, large overseas production runs, and highly competitive Asian supply chains.

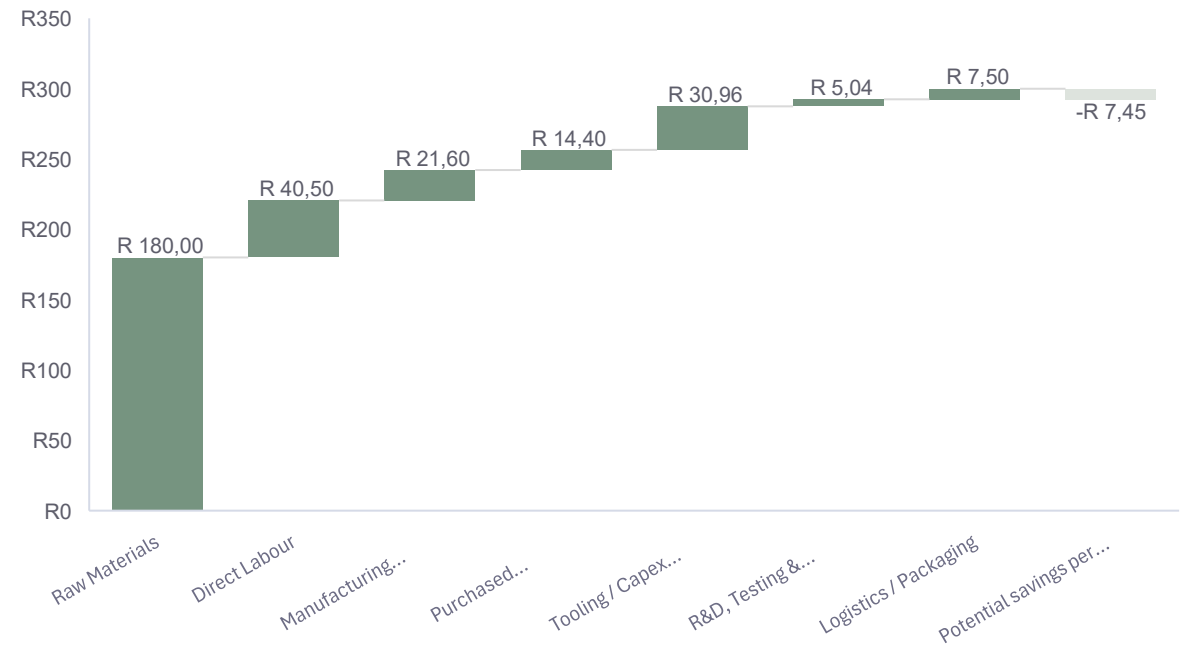
Price sensitivity:

Highly price-sensitive — a 1% price increase yields a 0.98% reduction in volumes.

Cost–benefit of price parity mechanism:

- At R300/set domestic and R120/set imported, the base-case gap is ~R160.55/set after achievable savings.
- Price-parity with a 10% local premium requires ~R160/set subsidy, totalling ~R35.6 million per annum.
- The resulting sales uplift of ~R36.5 million broadly covers the subsidy — the ratio is approximately 1:1, the most favourable among the 12 components.
- At SMME scale, the business case is marginal but not impossible. The priority is establishing effective channel access to AutoZone, Midas, and other retailers, combined with volume certainty from OEM supply or fleet contracts.

Figure 57: Price breakdown format and floor coverings



Own analysis of data from stakeholder engagements, and information from (Autoride, 2025; Mill Auto Parts, n.d.; GeoMechanic, n.d.)

F. Enabling conditions for successful localisation

Policy and regulatory interventions:

- Strengthen enforcement of the 15% MFN import duty — mats are frequently misclassified under broader "articles of rubber" headings at lower duty rates
- Improve standards enforcement at ports to remove sub-standard imports
- Consider developmental support (SMME programmes, retail incubation) rather than industrial protection as the appropriate policy frame for this component

Industry-led competitiveness improvements:

- Establish direct linkages to aftermarket retailers — channel access is the primary barrier, not production capability
- Secure volume commitments from OEM supply or government fleet contracts before committing to investment
- Explore recycled tyre feedstock as a domestic rubber input to reduce reliance on imported rubber compounds
- Target universal and semi-custom mat ranges that minimise SKU complexity

7. Future demand considerations

Mats are non-powertrain-dependent and their role is unchanged across ICE, hybrid, and EV platforms. NEV adoption poses no demand risk to this component. Mat replacement is driven by vehicle ageing and wear — dynamics that persist regardless of drivetrain type.

Section 5: Localisation Roadmap

5.1 Aftermarket Component Prioritisation

The table below synthesises the fiscal and economic impact indicators for each of the 12 components. It serves as the final validation layer determining which components receive component-specific localisation roadmaps.

Table 23: Synthesis of fiscal and economic impact indicators across component systems

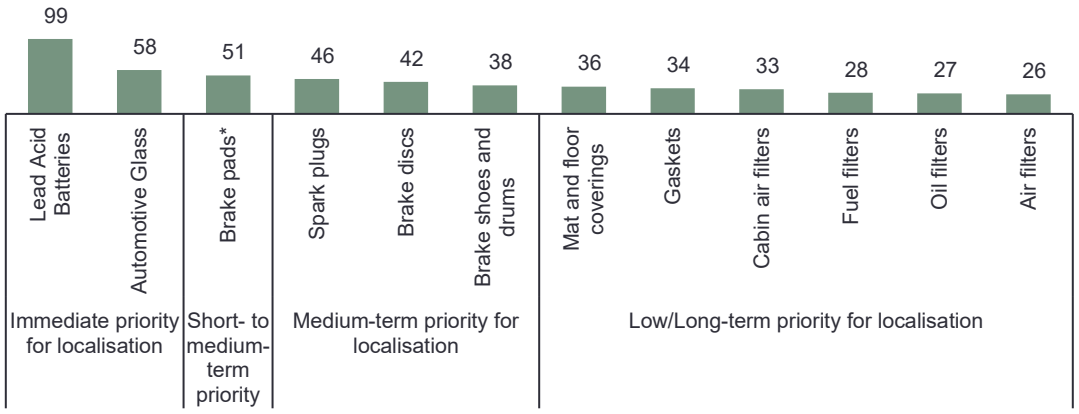
COMPONENT	PRICE PARITY NEED (RMIL, 2025 PRICES)	AFTERMARKET SIZE (RMIL, 2025 PRICES)	JOB CONTRIBUTIONS	BENEFIT COST RATIO (FOR EVERY R1 OF PRICE PARITY ACHIEVED, HOW MUCH WOULD SALES INCREASE BY)
Lead Acid Batteries	R58	R1 800	2431	(No need for price parity mechanism)
Spark plugs	R54	R512	1297	R0,43
Brake discs	R75	R460	564	R0,81
Brake shoes and drums	R52	R242	340	R0,81
Brake pads	R230	R1 000	1297	R0,80
Automotive Glass	R375	R1 400	1975	R0,83
Oil filters	R216	R403	567	R0,24
Mat and floor coverings	R36	R67	94	R1,01
Fuel filters	R245	R402	567	R0,38
Air filters	R618	R862	1302	R0,33
Cabin air filters	R122	R170	240	R0,83
Gaskets	R167	R180	532	R0,81

Source: Synthesis of evidence from the prior analysis

Three points are critical when reading this table:

- Benefit-Cost Ratios (BCRs) reflect only the direct sales effect of a price-parity mechanism. Additional supply-chain and economic multiplier effects are not quantified here but scale with the size of the mechanism implemented.
- In a fiscally constrained environment, price parity cannot be achieved simply by increasing spending or reducing prices through efficiency gains alone. The BCRs improve as enforcement, production, and import-quality interventions are implemented together.
- Scores are normalised to a 0–100 scale across four criteria — price-parity support required, aftermarket size, job contributions, and BCR — to enable like-for-like comparison.

Figure 58: Prioritisation of components for localisation by evidence synthesis



Source: Synthesis of all information up to this point in the analysis

The composite scoring reveals three groups of components:

Group 1 — Immediate priority

Lead-acid batteries, automotive glass, and brake pads consistently score highest across all four criteria. These are the focus of the detailed roadmaps in Section 5.2.

Group 2 — Medium-term priority

Brake discs, brake shoes and drums, air filters, spark plugs, cabin air filters, and gaskets show credible potential but with more mixed signals. Conditions may need further strengthening before large-scale localisation is feasible.

Group 3 — Longer-term or niche opportunity

Oil filters, fuel filters, and mats and floor coverings show lower composite scores, reflecting higher price-parity needs, smaller market sizes, or lower BCRs. These represent targeted niche opportunities or longer-horizon plays as structural dynamics evolve.

5.2 Component-specific roadmaps

The following section presents tailored roadmaps for each priority component identified for localisation. Each roadmap outlines the key activities, responsible stakeholders, success indicators, and risks across the short-, medium-, and long-term phases, ensuring a structured and actionable approach to implementation that complements the overarching road mapping approach.

5.2.1. LEAD-ACID BATTERIES

Lead-acid batteries emerge as the clearest near-term localisation opportunity: South Africa already has established manufacturing capacity and a stable replacement market. The binding constraint is not manufacturing capability, but the economics of production — specifically (i) the cost and availability of recycled lead feedstock (60–65% of production cost), (ii) uneven application of scrap-deposit levies across local and imported products, and (iii) weak enforcement of standards and trade rules that allows under-spec and circumvention-based imports to undercut compliant local supply.

The four recommendations below address each of these binding constraints directly.

R1 **Reform the used-battery export regime and standardise the scrap-deposit/levy framework**

Prevent used batteries from leaving the country through misdeclaration, and ensure a uniform scrap-deposit levy applies to all batteries sold domestically — imported and locally produced alike. This protects domestic recycled-lead feedstock (60–65% of production cost) and removes the competitive distortion created by importers who currently "free-ride" on domestic recycling infrastructure.

Key activities:

- Map leakage points across scrap flows: informal collectors, unregistered aggregators, and high-risk export routes/HS codes
- Build industry-wide traceability protocol: chain-of-custody documentation and tamper-proofing for used-battery shipments
- Support SARS with targeted evidence packs for profiling highest-risk exporters and routes
- Structure a harmonised scrap-deposit model: defined deposit values, return-eligibility rules, and standardised POS documentation

+ 3 further activities detailed in the implementation table below.

Implementation roadmap — Recommendation 1

Activities	• Map leakage points across scrap flows: informal collectors, unregistered aggregators, and high-risk export routes/HS codes • Build industry-wide traceability protocol: chain-of-custody documentation and tamper-proofing for used-battery shipments • Support SARS with targeted evidence packs for profiling highest-risk exporters and routes • Structure a harmonised scrap-deposit model: defined deposit values, return-eligibility rules, and standardised POS documentation • Roll out levy compliance progressively — high-volume retailers first, then independents

	• Consider extending the existing scrap-metal export ban to include lead and used automotive batteries (Schedule 1 Part 6 of the Customs Tariff) • Track reduction in export leakage through reconciled return-rate and smelter-intake data
Complexity	Moderate to high — requires coordinated profiling and enforcement; misdeclaration can shift across codes/routes if deterrence is weak. Levy rollout requires behavioural change across formal and informal channels.
Responsible	SARS Customs Division (export profiling and enforcement) Battery manufacturers and recyclers/smelters (integrity protocol, evidence packs, traceability) Retailers and distributors (POS levy compliance)
Accountable	National Treasury — SARS enforcement outcomes Industry leadership forum (battery producers/recyclers) — evidence and traceability execution Lead industry body — levy adoption across formal channels
Consulted	OEM service channels and large retailers (volume/return intelligence) Importers (compliance guidance) Industry associations dtic/SARS policy interfaces
Informed	Consumers (deposit/return messaging) Customs brokers and logistics sector Wider aftermarket participants

	Short term (<1 yr)	Medium term (<3 yrs)	Long term (>3 yrs)
Timeline	Map leakage routes and HS code patterns Build evidence packs for SARS profiling Draft harmonised levy model	Roll out levy across high-volume retailers Implement chain-of-custody documentation Evaluate export ban extension via ITAC	Full market-wide levy compliance Sustained feedstock availability monitoring Periodic reconciliation audits
Risks	• Persistent code-switching by exporters • Limited enforcement capacity and slow inter-agency coordination • Importers bypass levy; informal sellers evade compliance • Consumer resistance if deposit messaging unclear		
Mitigations	• Corridor-based profiling with published enforcement bulletins on confirmed violations • Phased rollout starting with high-volume retailers; simple auditable POS templates • Pair levy with clear consumer communication to prevent misinterpretation as a price increase • Unique identifiers on returns to reduce refund fraud		

R2 Strengthen enforcement of battery performance and quality standards

Batteries labelled at 60Ah that test materially lower enable under-spec imports to be sold cheaper, creating both consumer harm and systematic price distortion. Two distinct issues require treatment: (i) illicit or non-approved imports at the border (SARS responsibility) and (ii) under-spec batteries circulating in the domestic market (SABS/NRCS responsibility).

Key activities:

- Identify SKUs with highest misalignment between labelled and tested performance, using retailer returns and warranty claims
- Structure a verified-spec procurement framework for formal retailers — require accredited test certificates and traceability for all incoming stock
- Support SABS and accredited labs: coordinate sample submissions and standardise packaging/labelling for testing
- Implement routine in-market sampling, targeting high-volume references, repeat offenders, and suspiciously low-priced imports

+ 1 further activities detailed in the implementation table below.

Implementation roadmap — Recommendation 2

Activities	• Identify SKUs with highest misalignment between labelled and tested performance, using retailer returns and warranty claims • Structure a verified-spec procurement framework for formal retailers — require accredited test certificates and traceability for all incoming stock • Support SABS and accredited labs: coordinate sample submissions and standardise packaging/labelling for testing • Implement routine in-market sampling, targeting high-volume references, repeat offenders, and suspiciously low-priced imports • Develop systematic import testing to establish a list of non-compliant products prohibited from entering South Africa or SACU
Complexity	Moderate — standards exist but enforcement is weak; technical work (sampling/testing) is feasible if procurement discipline and lab throughput are strengthened.
Responsible	SARS Customs inspection/profiling teams SABS testing and certification units / accredited labs Retailer procurement and QA teams
Accountable	SABS executive leadership — credible domestic enforcement and test throughput Retail executive leadership — procurement discipline and delisting actions
Consulted	Accredited labs, distributors, consumer bodies Importers (documentation alignment) Industry associations
Informed	Consumer and workshop networks Retail channel partners (delisting + compliance)

Short term (<1 yr)	Medium term (<3 yrs)	Long term (>3 yrs)

Timeline	Map spec-gap SKUs using returns data Pilot verified-spec procurement framework with major retailers Establish lab submission protocols	Systematic import testing programme in place Non-compliant product list published and enforced Retailer procurement frameworks formalised	Sustained market surveillance programme Regional standards alignment under AfCFTA/ARSO Zero tolerance for mislabelled product
Risks	• Testing bottlenecks and lab capacity constraints • Retailers inconsistently applying procurement discipline • Non-compliant stock shifting to informal channels		
Mitigations	• Start with tightly defined set of high-runner SKUs to avoid overloading labs • Formalise retailer procurement requirements to constrain weaker channels • Develop standardised documentation templates to reduce disputes and testing ambiguity		

R3 Tighten trade and border enforcement to reduce circumvention

Active circumvention behaviours (routing through intermediary countries) and slow investigation cycles (12–18 months) weaken deterrence and allow unfairly priced products to continue entering the market. Two enforcement domains require strengthening: origin verification at the border and trade remedy case throughput.

Key activities:

- Identify distributors and routes exhibiting inconsistent pricing or unusual routing patterns
- Map gaps in origin verification documentation (inconsistencies in supplier declarations, factory addresses, certificates of origin)
- Structure importer due-diligence protocols with audit rights, confirmatory documentation, and sanctions
- Support trade-enforcement units with consolidated evidence to enable faster triage — target reduction of investigation cycle from 12–18 months

+ 2 further activities detailed in the implementation table below.

Implementation roadmap — Recommendation 3

Activities	• Identify distributors and routes exhibiting inconsistent pricing or unusual routing patterns • Map gaps in origin verification documentation (inconsistencies in supplier declarations, factory addresses, certificates of origin) • Structure importer due-diligence protocols with audit rights, confirmatory documentation, and sanctions • Support trade-enforcement units with consolidated evidence to enable faster triage — target reduction of investigation cycle from 12–18 months • Establish clear service-standard timelines for resolving circumvention cases • Create a structured industry evidence-submission process to accelerate case initiation
Complexity	High — circumvention involves adaptive behaviours (routing/country-hopping) and current investigation cycles are too slow to create deterrence.
Responsible	SARS Customs (origin verification and border enforcement) Trade remedy / origin verification enforcement teams

	Manufacturer market-intelligence contributors (evidence packs) Importer/distributor compliance teams		
Accountable	Trade enforcement leadership — investigation throughput and deterrence outcomes Importer/distributor leadership — internal compliance execution		
Consulted	Legal/compliance advisors Industry associations (evidence coordination) ITAC/trade policy stakeholders		
Informed	Market participants (deterrence signal) Clearing agents and logistics operators		
	Short term (<1 yr)	**Medium term (<3 yrs)**	**Long term (>3 yrs)**
Timeline	Build importer-level risk scoring using pricing anomalies and routing patterns Strengthen cross-agency coordination (Customs, trade enforcement, ITAC) via shared dashboards	Reduce average investigation cycle time Importer due-diligence protocols operational Contractual enforcement in importer-supplier agreements (penalties, termination)	Sustained low circumvention rates Aligned case timelines across agencies Repeat offender tracking and escalation
Risks	• Circumvention route shifting in response to enforcement • Long case cycles persist • Corruption risks in enforcement chain		
Mitigations	• Corridor-based profiling and monitoring of repeated misclassification patterns • Strengthen contractual enforcement in importer-supplier agreements • Increase cross-agency coordination through shared dashboards and aligned case timelines		

R4 Build scale through structured demand, incremental automation, and export development

Local installed capacity is approximately 1.8–1.9 million units per year, against competitors producing 20–40 million units with high automation. Three mechanisms can shift the unit-cost curve: (i) structured demand visibility between OEMs, manufacturers, and retailers; (ii) incremental automation tied to secured volumes; and (iii) focused AfCFTA export development.

Key activities:

- Identify top 10–15 high-runner battery SKUs with predictable replacement volumes
- Structure non-binding rolling-forecast and indicative call-off processes between manufacturers and major retailers — compliant with Competition Commission requirements
- Tie automation upgrades to verified demand milestones to avoid stranded capex
- Implement SKU rationalisation to reduce low-runner fragmentation

+ 3 further activities detailed in the implementation table below.

Implementation roadmap — Recommendation 4

Activities	• Identify top 10–15 high-runner battery SKUs with predictable replacement volumes • Structure non-binding rolling-forecast and indicative call-off processes between manufacturers and major retailers — compliant with Competition Commission requirements • Tie automation upgrades to verified demand milestones to avoid stranded capex • Implement SKU rationalisation to reduce low-runner fragmentation • Identify anchor export partners in Morocco, Egypt, and Ghana — map regulatory and technical requirements for these markets • Structure multi-year export partnership proposals (pricing bands, MOQs, delivery cycles) • Track cost-reductions and utilisation improvements against committed demand milestones		
Complexity	Moderate — demand-visibility tools are non-binding and compliant with competition law; export partnerships require multi-party coordination and relationship development.		
Responsible	Manufacturing planning teams Retail category managers and procurement teams Operations and engineering teams (staged automation) Export sales teams and regional distribution partners		
Accountable	Manufacturer operations leadership — cost-down outcomes and volume commitments Manufacturer export leadership — anchor-partner acquisition and sustained volume		
Consulted **Informed**	OEM service channels (where relevant) Distributors and major buyers (demand validation) Export councils and ITAC SARS Wider retail network and workshops (availability implications) Regional customers and internal manufacturing teams		
	Short term (<1 yr)	**Medium term (<3 yrs)**	**Long term (>3 yrs)**
Timeline	Map high-runner SKUs and seasonal demand cycles Initiate structured forecast-sharing with major retailers Identify anchor export targets and map regulatory requirements	First automation upgrades linked to verified volumes Export trials with anchor partners — high-runner SKUs first SKU rationalisation completed	Sustained export volumes supporting domestic utilisation Further automation linked to export demand Competitive unit-cost structure vs key import origins
Risks	• Forecast errors cause over/under production • Automation capex risk if demand softens • Anchor export partners do not materialise • FX/logistics volatility in target markets		

Mitigations	• Use conservative baseline forecasts reviewed quarterly • Link automation upgrades to verifiable demand milestones • Diversify across more than one partner market • Start with high-runner SKUs to minimise validation complexity and protect cash flow

5.2.2 AUTOMOTIVE GLASS

South Africa's automotive-glass segment has a distinct localisation profile: domestic windscreen manufacturing already exists and supplies a meaningful share of the replacement market, but localisation is constrained by (i) low-priced and sometimes non-compliant imported windscreens; (ii) weak enforcement of anti-dumping duties; (iii) furnace under-utilisation caused by fragmented demand across 8,000+ part numbers; (iv) high capital intensity of furnace operations requiring long production runs; and (v) increasing ADAS complexity requiring specialised tooling.

At the same time, aftermarket dynamics remain strongly favourable: windscreens have one of the highest replacement frequencies in the aftermarket, insurers drive large volumes through claims channels, and South Africa is one of the few African markets with furnace capability. The four recommendations below target each structural constraint.

R1 **Enforce minimum quality standards and strengthen customs enforcement**

Two distinct issues require separate treatment: (i) illicit or non-approved imports are a SARS Customs responsibility — under-invoicing, misdeclaration, trans-shipment to evade anti-dumping duties; (ii) inferior or uncertified windscreens circulating domestically are an NRCS/SABS responsibility. Strengthening both channels reduces unfair competition from sub-standard glass and improves road safety outcomes.

Key activities:

- Identify high-risk import routes and recurring misdeclaration patterns; re-enforce anti-dumping circumvention monitoring
- Monitor price shifts closely to evaluate the possibility of factory-hopping (as occurred in the tyre industry)
- Map compulsory testing gaps: optical performance, fragmentation, UV/IR coatings, and ADAS-bracket integrity
- Structure a unified enforcement protocol between SARS (border) and NRCS/SABS (domestic compliance)

+ 3 further activities detailed in the implementation table below.

Implementation roadmap — Recommendation 1

Activities	• Identify high-risk import routes and recurring misdeclaration patterns; re-enforce anti-dumping circumvention monitoring • Monitor price shifts closely to evaluate the possibility of factory-hopping (as occurred in the tyre industry) • Map compulsory testing gaps: optical performance, fragmentation, UV/IR coatings, and ADAS-bracket integrity

	• Structure a unified enforcement protocol between SARS (border) and NRCS/SABS (domestic compliance) • Expand SABS/NRCS testing capacity — optical, distortion, and adhesion-strength testing flagged as bottlenecks • Implement batch-level digital certification linked to import manifests and VIN-compatible coding • Conduct market surveillance in fitment centres and informal distributors
Complexity	Moderate to high — depends on inter-agency coordination and SABS/NRCS capacity expansion; import circumvention is adaptive.
Responsible	SARS Customs NRCS/SABS testing labs Border Management Authority Market-surveillance teams
Accountable	dtic — standards and enforcement oversight National Treasury — testing-capacity funding SABS executive leadership
Consulted	Importers OEM aftersales units Fitment networks NAAMSA/NAACAM SAPS (illicit trade)
Informed	Consumers Logistics operators Insurers Road-safety associations

	Short term (<1 yr)	Medium term (<3 yrs)	Long term (>3 yrs)
Timeline	Map high-risk routes and misdeclaration patterns Structure SARS–NRCS unified enforcement protocol Expand SABS lab capacity (funding allocation)	Batch-level digital certification operational Market surveillance programme running Factory-hopping monitoring in place	Sustained low non-compliance rates Regional standards alignment (ARSO/AfCFTA) Zero uncertified windscreens in formal retail channels
Risks	• Enforcement bottlenecks; informal-sector non-compliance • Adaptive illicit-trade routes • Capacity gaps at SABS/NRCS		
Mitigations	• Increase Treasury allocations for lab throughput • Risk-based inspections to avoid unnecessary border delays		

	• Shared inter-agency KPIs • Strengthen penalties for repeat offenders

R2 Focus on high-runner windscreen SKUs to improve furnace utilisation

Furnace economics require approximately 450,000 windscreens per year. South Africa's parc contains 8,000+ windscreen part numbers — fragmented demand limits long production runs. High-runner SKUs (stable insurance-channel volumes) are the most viable candidates for extended furnace campaigns, with regional export into Ghana, Kenya, Nigeria, and Uganda providing additional volume.

Key activities:

- Identify top-runner SKUs using parc penetration data, insurer replacement volumes, and fitment-centre data
- Map furnace-planning constraints: changeover times, yield effects, and SKU-specific batch-length impacts
- Structure furnace runs around highest-volume SKUs to lengthen run cycles and reduce changeovers
- Align demand stability through insurer, wholesaler, and fitment-network call-off commitments

+ 3 further activities detailed in the implementation table below.

Implementation roadmap — Recommendation 2

Activities	• Identify top-runner SKUs using parc penetration data, insurer replacement volumes, and fitment-centre data • Map furnace-planning constraints: changeover times, yield effects, and SKU-specific batch-length impacts • Structure furnace runs around highest-volume SKUs to lengthen run cycles and reduce changeovers • Align demand stability through insurer, wholesaler, and fitment-network call-off commitments • Phase out ultra-low-volume SKUs that disrupt furnace sequencing (run on smaller furnaces during downtime) • Develop regional export strategy targeting African markets without furnace capacity • Track furnace utilisation, yield, and unit-cost improvements over time
Complexity	Low to moderate — furnace-planning optimisation is operationally manageable but depends on stable insurer and fitment demand.
Responsible	Plant production managers Manufacturing schedulers Procurement teams Insurer demand-planning teams
Accountable	Manufacturer operations leadership — utilisation and cost-down outcomes
Consulted	Major insurers and fitment networks Distribution partners

Informed	OEM planners Finance teams Inventory planners Key customers and distributors		
	Short term (<1 yr)	**Medium term (<3 yrs)**	**Long term (>3 yrs)**
Timeline	SKU demand analysis using insurer and fitment data Restructure furnace schedule around high-runners Identify regional export targets	Insurer and fitment-network call-off agreements in place Furnace utilisation materially improved First export volumes into regional markets	Sustained high furnace utilisation underpinning export and domestic competitiveness ADAS-tooling amortised over multi-market volumes
Risks	• Demand shifts from insurer/fitment networks • Furnace thermal-stress risks from scheduling changes • Over-focus on high-runners reduces flexibility if demand shifts		
Mitigations	• Annual parc-linked SKU reviews • Maintain contingency capacity for low-volume SKUs (smaller furnace downtime runs) • Improve forecasting with multi-route shipping as backup		

R3 Strengthen export competitiveness and align insurance procurement with local content

Insurance replacements drive a large share of windscreen demand, yet reimbursement frameworks do not differentiate between imported and locally produced windscreens despite quality and logistics differences. A tiered reimbursement model (100% for compliant local glass; 80–90% for imports) creates a demand-side mechanism that improves furnace utilisation without requiring a direct subsidy.

Key activities:

- Map insurer procurement behaviour and claims-routing patterns for windscreen replacements
- Improve packaging, sea-freight consolidation, and regional distribution hubs to reduce landed-cost variability and breakage (averaging 3.2% of shipments)
- Work with insurers to adopt a tiered reimbursement model favouring compliant domestic glass
- Implement QR-based local-content verification in claims and fitment workflows

+ 2 further activities detailed in the implementation table below.

Implementation roadmap — Recommendation 3

Activities	• Map insurer procurement behaviour and claims-routing patterns for windscreen replacements • Improve packaging, sea-freight consolidation, and regional distribution hubs to reduce landed-cost variability and breakage (averaging 3.2% of shipments) • Work with insurers to adopt a tiered reimbursement model favouring compliant domestic glass • Implement QR-based local-content verification in claims and fitment workflows • Leverage AfCFTA Rules of Origin to expand regional export competitiveness

	• Track insurer uptake, furnace utilisation improvements, and export-lane volumes		
Complexity	Moderate to high — requires insurer system changes, claims-rules reconfiguration, and export-market compliance alignment.		
Responsible	Manufacturer export teams Insurer technical divisions OEM aftersales units Regional trade and transport partners		
Accountable	Trade enforcement leadership Insurer CEOs (reimbursement framework adoption)		
Consulted	Export councils Insurance associations SABS — regional homologation bodies (ECE R43)		
Informed	Provincial industry agencies Major fleets Road-safety bodies		
	Short term (<1 yr)	**Medium term (<3 yrs)**	**Long term (>3 yrs)**
Timeline	Map insurer procurement and claims-routing patterns Build business case for tiered reimbursement model Improve packaging and consolidation for export shipments	Pilot tiered insurer reimbursement with 2–3 major insurers QR-based local-content verification operational First structured AfCFTA export lanes active	Full insurer adoption of local-content reimbursement framework Export volumes materially contributing to furnace utilisation South Africa as the continental windscreen hub
Risks	• Insurer resistance to tiered reimbursement • Delays in obtaining export certifications • Logistics damage in transit • Cross-border clearance delays		
Mitigations	• Pilot insurer local-first routing with willing partners before mandating • Build pre-certification packs for target export markets • Prioritise top 2–3 regional markets to avoid over-reach		

R4 Establish a joint tooling framework for new-entrant OEM models

Chinese and Indian brands now represent ~30% of new vehicle sales. The barrier to localising their windscreens is not the glass-forming process but ADAS-related tooling (brackets, camera mounts, HUD coatings) costing R400,000–500,000 per part number, with parc volumes initially too low to amortise. A

co-funded national tooling framework — OEMs, domestic manufacturers, and public-sector programmes — shares risk and enables early-stage localisation ahead of volume maturity.

Key activities:

- Identify ADAS-related bracket, sensor-mount, and HUD tooling requirements per new-entrant Chinese/Indian models
- Map shared-tooling opportunities to amortise R400k–500k bracket tooling costs
- Structure OEM–supplier cost-sharing agreements and modular tooling frameworks for low-volume models
- Support suppliers with early access to CAD, GD&T, and PPAP timelines aligned with OEM launch calendars

+ 2 further activities detailed in the implementation table below.

Implementation roadmap — Recommendation 4

Activities	• Identify ADAS-related bracket, sensor-mount, and HUD tooling requirements per new-entrant Chinese/Indian models • Map shared-tooling opportunities to amortise R400k–500k bracket tooling costs • Structure OEM–supplier cost-sharing agreements and modular tooling frameworks for low-volume models • Support suppliers with early access to CAD, GD&T, and PPAP timelines aligned with OEM launch calendars • Implement governance protocols covering IP ownership, confidentiality, and cross-model tooling re-use • Track localisation feasibility via parc-growth analysis and bracket-tool utilisation
Complexity	Moderate to high — requires OEM cooperation, early design data, and multi-party cost-sharing across low-volume ADAS tooling.
Responsible	OEM engineering teams Local glass manufacturers dtic tooling-support units Tooling suppliers
Accountable	Lead industry body or governance forum — cross-OEM adoption and cost-sharing framework dtic — public co-funding accountability
Consulted	IP/legal advisors OEMs Testing labs Fitment networks
Informed	Provincial economic-development teams Export councils

Short term (<1 yr)	Medium term (<3 yrs)	Long term (>3 yrs)

Timeline	Identify tooling requirements for top 5 new-entrant models by parc penetration Build governance framework and IP ownership rules Secure early CAD data from willing OEMs	First shared tooling investments made for highest-volume new-entrant SKUs Modular tooling operational for 2–3 bracket types Localisation feasibility validated against actual parc growth	Full suite of ADAS tooling covering top 20 new-entrant SKUs Tooling framework extended to additional components beyond glass Cost-sharing model replicated for other ADAS-intensive components
Risks	• OEM delays; disputes over tooling IP • Low-volume models discontinued early • Supplier capacity constraints • Multi-OEM data-sharing risks		
Mitigations	• Establish joint governance rules early; secure early CAD data • Adopt modular tooling to reduce model-specific stranded investment • Non-exclusivity safeguards to protect tooling re-use across models		

5.2.3 BRAKE PADS

Brake pads represent a large and stable aftermarket segment (2–3 million sets per annum) with established local manufacturing. The core constraint is that imported pads — often with thinner backing plates and lower-grade friction material — land 20–30% below local production costs, driving aftermarket sourcing toward imports. OEMs source locally for on-line fitment, but independent aftermarket retailers and consumers have shifted predominantly toward imported product.

The four recommendations below address enforcement, incentive access, production focus, and regional standards alignment. Note: the incentive landscape discussed in Recommendation 2 (MSP, SPII, S11D, NIPP, AITF, B-BBEE ESD) applies equally to lead-acid batteries and automotive glass but is not repeated in those sections for brevity.

R1 Strengthen SARS and SABS enforcement to block unsafe, low-quality brake pads

Two distinct issues require treatment: (i) illicit/non-approved imports including round-tripping — a SARS Customs responsibility; and (ii) inferior or unsafe brake pads in the domestic market — a SABS responsibility. Sub-standard imports (thinner backing plates, lower-grade friction material) undercut compliant local producers while creating road safety risks.

Key activities:

- Increase SARS inspections and risk profiling for brake pad imports
- Strengthen SABS testing capacity for compulsory standards (ECE R90)
- Clarify SARS–SABS roles for border vs. domestic enforcement
- Introduce digital tracking for certification and import batches

+ 2 further activities detailed in the implementation table below.

Implementation roadmap — Recommendation 1

Activities	• Increase SARS inspections and risk profiling for brake pad imports • Strengthen SABS testing capacity for compulsory standards (ECE R90) • Clarify SARS–SABS roles for border vs. domestic enforcement • Introduce digital tracking for certification and import batches • Conduct targeted market surveillance of high-risk retailers and distributors • Mandate backing plate thickness testing on a sub-sample of imports — creates like-for-like comparison with local product		
Complexity	Moderate to high — fiscal resource constraints; inter-agency coordination required.		
Responsible	SARS Customs Division SABS Testing and Certification Units		
Accountable	National Treasury (SARS) dtic (SABS)		
Consulted	Automotive aftermarket associations (RMI) OEMs and importers SAPS (illicit trade coordination) ITAC (tariff alignment implications)		
Informed	Industry bodies Consumer and road safety organisations Logistics sector and customs brokers		
	Short term (<1 yr)	**Medium term (<3 yrs)**	**Long term (>3 yrs)**
Timeline	Increase SARS risk profiling for brake pad imports Map SABS testing capacity gaps Clarify inter-agency enforcement roles	Digital certification tracking operational Market surveillance programme running Mandatory backing plate thickness testing in place	Sustained low non-compliance rates ARSO alignment for AfCFTA export access Brake pads on non-compliant product prohibited list
Risks	• Insufficient funding for SABS upgrades • Resistance from importers • Slow inter-agency coordination • Illegal imports circumventing formal channels		
Mitigations	• Secure dedicated Treasury allocations for SABS upgrades • Phase enforcement to allow industry adjustment • Formal inter-agency task team with shared KPIs • Risk-based inspections to avoid border backlogs		

R2 Improve access to and uptake of localisation incentives (MSP, SPII, S11D, NIPP, AITF, B-BBEE ESD)

Manufacturers are often unaware of available incentives or do not qualify under current criteria (e.g., AIS does not cover aftermarket production). The most impactful interventions are: (i) extending MSP/SPII/S11D eligibility to aftermarket production; (ii) directing OEM NIPP obligations toward local component producers; (iii) using AITF for longer-term capability upgrades; and (iv) aligning OEM B-BBEE ESD spend with capable aftermarket firms.

Key activities:

- Map required tooling, testing, and certification needs for aftermarket brake pad production
- Investigate extension of AIS incentive criteria to include aftermarket manufacture
- Facilitate OEM-aftermarket supplier-development engagements to acquit NIPP obligations through local brake pad supply
- Identify AITF-eligible brake pad manufacturers for phased capability upgrades (automation, QA systems)

+ 3 further activities detailed in the implementation table below.

Implementation roadmap — Recommendation 2

Activities	• Map required tooling, testing, and certification needs for aftermarket brake pad production • Investigate extension of AIS incentive criteria to include aftermarket manufacture • Facilitate OEM-aftermarket supplier-development engagements to acquit NIPP obligations through local brake pad supply • Identify AITF-eligible brake pad manufacturers for phased capability upgrades (automation, QA systems) • Structure OEM B-BBEE ESD programmes targeting Tier 2, Tier 3, and aftermarket firms with proven localisation potential • Create dtic awareness campaigns through industry bodies on available programmes • Monitor implementation to ensure tooling and production upgrades translate into localisation outcomes
Complexity	Moderate — incentives exist but firms need guidance; AIS extension requires policy adjustment.
Responsible	Component manufacturers (execution of funded upgrades) Incentive advisors and grant specialists dtic programme administrators (MSP, SPII, S11D) OEM NIPP compliance teams AITF programme administrators OEM ESD teams
Accountable	Firm leadership — execution of funded upgrades dtic — NIPP compliance and industrial development outcomes OEM leadership — meaningful project selection and AITF nominations AITF governance structures

Consulted	Department of Science and Innovation NAAMSA and NAACAM OEMs and suppliers (technical alignment) SABS/NRCS (where certification required) Financial institutions (co-funding)		
Informed	Aftermarket distributors and channel partners Provincial development agencies Government stakeholders tracking localisation progress		
	Short term (<1 yr)	**Medium term (<3 yrs)**	**Long term (>3 yrs)**
Timeline	dtic awareness campaign through NAAMSA/NAACAM on MSP, SPII, S11D eligibility Map OEM NIPP obligations against aftermarket brake pad opportunities Identify AITF-eligible firms for capability upgrades	AIS criteria extended to include aftermarket manufacture First NIPP-backed local supplier agreements formalised AITF-funded capability upgrades underway ESD programmes delivering tooling/QA investments to aftermarket firms	Sustained use of incentive architecture by aftermarket producers Aftermarket firms competitive without ongoing incentive support NIPP and AITF embedded as structural capability-building tools
Risks	• Firms lack awareness of incentive programmes • Funding timelines misalign with production needs • Programme administrators face backlogs • AITF funding commercially prohibitive without concessional element		
Mitigations	• dtic create structured awareness through industry bodies • Propose AITF projects with modular, platform-agnostic upgrades (QA, automation) • Blend concessional and commercial AITF financing (e.g. 20% concessional per R100 facility) • Prioritise high-impact NIPP projects with clear demand linkages		

R3 Focus production on high-runner SKUs to improve costs and production efficiency

Localisation is most viable when concentrated on high-volume, stable-demand part numbers. The vehicle parc forecast (Annexure C) identifies the models driving demand to 2035. Chinese and Indian brands (GWM, Chery, Mahindra, Omoda, Jaecoo) will become significant from 2027 as they exit warranty — manufacturers should begin tooling planning now.

Key activities:

- Identify top brake-pad SKUs by parc penetration and demand stability (using Lightstone data)
- Align tooling and production planning to prioritise high-volume references
- Adjust procurement and materials planning to support longer, continuous runs
- Engage distributors to confirm SKU demand patterns and minimise low-volume fragmentation

+ 2 further activities detailed in the implementation table below.

Implementation roadmap — Recommendation 3

Activities	• Identify top brake-pad SKUs by parc penetration and demand stability (using Lightstone data) • Align tooling and production planning to prioritise high-volume references • Adjust procurement and materials planning to support longer, continuous runs • Engage distributors to confirm SKU demand patterns and minimise low-volume fragmentation • Begin tooling evaluation for Chinese/Indian brand models expected to exit warranty from 2027 • Phase out or deprioritise low-runner SKUs that dilute production efficiency		
Complexity	Low to moderate where plants are agile; high where plants are geared toward specific brands.		
Responsible	Production managers Manufacturing planning teams Procurement and inventory teams		
Accountable	Production planning leadership — utilisation and cost-down outcomes		
Consulted	Sales and distribution partners Aftermarket distributors OEM channel partners (where relevant) Quality assurance teams		
Informed	Executive leadership Finance teams (cost-efficiency gains) Key customers and distributors		
	Short term (<1 yr)	**Medium term (<3 yrs)**	**Long term (>3 yrs)**
Timeline	SKU demand analysis using distributor and parc data Restructure production schedule around high-runners Assess tooling requirements for top Chinese/Indian brand models	Production efficiency measurably improved Low-runner SKUs phased down or managed separately Tooling investments for new-entrant brands under way	Sustained competitive unit costs on high-runner SKUs Chinese/Indian brand SKUs integrated into production planning Export-ready SKU portfolio for AfCFTA markets
Risks	• Incorrect demand forecasts • Reduced availability of niche SKUs for some customers • Over-reliance on limited models if parc trends shift		
Mitigations	• Update demand data regularly using distributor and parc information • Maintain limited capacity for essential low-runner SKUs • Annual SKU strategy review aligned with vehicle parc dynamics		

R4 Maintain SABS domestic standards while pursuing ARSO alignment for AfCFTA market access

SABS is responsible for maintaining and enforcing existing South African standards. ARSO alignment under AfCFTA is a strategic export-market lever — not a replacement for domestic enforcement. A "dual compliance" framework enables manufacturers to meet domestic requirements while gaining recognition in regional markets.

Key activities:

- Define target ARSO standards for brake pads and map gaps versus current South African requirements
- Establish a national "dual compliance" position: SABS domestic rules remain mandatory; ARSO alignment enables exports
- Create an industry-government technical working group to coordinate adoption and sequencing
- Upgrade local conformity assessment (testing, certification, lab methods) to recognise ARSO-aligned requirements

+ 2 further activities detailed in the implementation table below.

Implementation roadmap — Recommendation 4

Activities	• Define target ARSO standards for brake pads and map gaps versus current South African requirements • Establish a national "dual compliance" position: SABS domestic rules remain mandatory; ARSO alignment enables exports • Create an industry-government technical working group to coordinate adoption and sequencing • Upgrade local conformity assessment (testing, certification, lab methods) to recognise ARSO-aligned requirements • Pilot ARSO-aligned certification with selected manufacturers for regional market entry • Engage priority AfCFTA markets to support mutual recognition and reduce duplicate testing
Complexity	Moderate to high — standard alignment is technical, multi-party, and depends on recognition across countries.
Responsible	SABS Standards Development and technical committees dtic policy teams (regional standards and market-access workstreams) Industry technical leads
Accountable	dtic — overall AfCFTA/standards alignment mandate SABS — domestic standards governance
Consulted	ARSO technical structures NRCS (compulsory specifications and market surveillance) SARS Customs NAACAM and aftermarket associations OEMs, NAAMSA, and major distributors

Informed	Local manufacturers (Tier 1–3 and aftermarket) Export councils and trade promotion bodies Regional customers in priority AfCFTA markets		
	Short term (<1 yr)	**Medium term (<3 yrs)**	**Long term (>3 yrs)**
Timeline	Map ARSO standard gaps vs current SABS requirements Establish industry-government technical working group Publish dual-compliance guidance for manufacturers	ARSO-aligned certification piloted with selected manufacturers Mutual recognition negotiations with priority AfCFTA markets Lab capacity upgraded for ARSO requirements	Full ARSO alignment enabling duty-free export access Reduced duplicate testing at African destinations South African brake pads competitive across continental aftermarket
Risks	• ARSO alignment treated as substitute for SABS enforcement • Slow cross-country recognition results in "alignment on paper" • Testing capacity constraints undermine certification credibility		
Mitigations	• Publish clear two-track policy: domestic mandatory, ARSO for export • Prioritise small set of high-value target markets; negotiate recognition early • Build single practical compliance guide for manufacturers covering both tracks		

5.3 Overarching recommendations

Component-specific interventions alone will not likely be sufficient to achieve meaningful localisation. The following cross-cutting recommendations address systemic constraints that apply across all components.

Improve demand visibility and coordinated planning

Manufacturers continue to face uncertainty about realistic replacement volume forecasts from OEMs. Retailers, fitment centres, and distributors hold this information but seldom share it upstream in a structured manner. Structured roundtables and consultations between OEMs and component manufacturers — particularly following publication of this report — can translate analysis into shared commercial expectations. This is the single highest-impact cross-cutting action available in the short term.

Conduct a skills audit and invest in shared technical infrastructure

Many Tier 2, Tier 3, and aftermarket firms face significant cost barriers in accessing accredited testing, validating components, or reverse-engineering tooling. A detailed skills audit should assess toolmaking capacity, engineering skills, and testing infrastructure. Industry-led investment in shared laboratories and testing equipment — supported by existing incentive schemes rather than new

government funding — would reduce duplicated costs while lifting the technical floor across the sector.

Deepen OEM–supplier collaboration through NIPP, AITF, and B-BBEE ESD

NIPP obligations can be channelled toward supplier development for domestic component manufacturers. Where NIPP alone is insufficient, the AITF provides a further avenue for OEMs to sponsor targeted capability upgrades — including second-brand aftermarket offerings. Consider a concessional element within AITF financing (e.g. 20% concessional per R100 facility activated) to improve the commercial viability of manufacturing investment. OEM B-BBEE ESD spend should be aligned with capable aftermarket firms across Tier 2 and Tier 3.

Modernise production processes and improve internal competitiveness

As pilot projects mature, manufacturers will need to adopt incremental automation, improve operational discipline (scrap reduction, line balancing), and invest in quality systems. Incentives (MSP, SPII, S11D) can assist with capital requirements for tooling and R&D, but the impetus to modernise must come from firms themselves. These programmes can also prepare firms for export opportunities by investing in manufacturing capacity and tooling development to expand the suite of product derivatives.

Build an outward-looking, export-oriented growth strategy

Domestic market size alone is insufficient for most of the shortlisted components. Leveraging AfCFTA — particularly Rules of Origin provisions — to access regional markets expands the addressable volume base and justifies investments in tooling and automation that cannot be amortised on domestic demand alone. Export readiness should be embedded alongside domestic localisation from the outset, not treated as a secondary objective.

Taken together, these overarching recommendations strengthen the enabling environment across all components — ensuring that localisation does not hinge solely on incentives or policy shifts, but on coordinated industry action, capability development, structured collaboration, and an outward-looking growth orientation. By embedding these systemic enablers alongside the component-level interventions, South Africa can build a more resilient and competitive manufacturing ecosystem capable of serving both domestic and regional markets.

Section 6: Conclusions

The preceding sections of this report have combined quantitative evidence, industry insight and structured evaluation tools to establish a clear and defensible view of where the strongest localisation opportunities lie in South Africa's automotive aftermarket.

By integrating trade data, PCA-based signal testing, stakeholder validation and a detailed CLF assessment, the study has progressively narrowed a wide universe of components into a focused set of parts where demand, capability and feasibility align. This mixed-methods approach was essential given the fragmented nature of the aftermarket, the uneven availability of data, and the need to balance analytical signals with the lived realities of firms operating across the value chain.

Taken together, the findings highlight that meaningful localisation is possible, but only where underlying fundamentals support scale, competitiveness and technological readiness.

The shortlisted components represent those where evidence consistently points toward practical opportunities for domestic production, and where modest targeted improvements in capability or operating conditions could yield measurable gains.

The conclusion that follows summarises these outcomes, restates the core recommendations, and outlines areas where further effort will be required to build a more resilient, competitive and integrated aftermarket manufacturing base.

6.1 Summary of recommendations

This section presents a consolidated view of the recommendations emerging from the localisation analysis. It provides:

- Snapshot of the component-specific recommendations for the three shortlisted products, namely lead-acid batteries, brake pads, and auto glass; and
- Snapshot of the overarching recommendations that cut across components and underpin sustainable localisation in the aftermarket.

Together, these recommendations form the basis for the detailed roadmaps and implementation considerations set out in the preceding chapter.

6.1.1 COMPONENT-LEVEL RECOMMENDATIONS (SHORTLISTED COMPONENTS)

Figure 59: Snapshot of Component-Level Recommendations

Lead-acid batteries

Tier 1 — High feasibility

R1 Reform used-battery export regime

Restrict exports; standardise scrap-deposit levy across all sellers

R2 Strengthen quality enforcement

SABS testing of labelled vs actual Ah/CCA performance; verified-spec procurement

R3 Tighten border enforcement

Origin verification; reduce 12–18 month investigation cycles to improve deterrence

R4 Build scale and export readiness

Structured forecasting; staged automation; AfCFTA export partnerships (Morocco, Egypt, Ghana)

Automotive glass

Tier 1 — High feasibility

R1 Enforce minimum quality standards

SARS + NRCS/SABS joint enforcement protocol; monitor factory-hopping

R2 Focus on high-runner SKUs

Improve furnace utilisation via insurer and fitment network call-off alignment

R3 Align insurance procurement

Tiered reimbursement model (100% local, 80–90% imported); AfCFTA export competitiveness

R4 Joint tooling framework

Co-funded ADAS bracket and sensor tooling for Chinese/Indian OEM models

Brake pads

Tier 1 — High feasibility

R1 Strengthen enforcement

Block unsafe pads; mandate backing plate thickness testing on imported product

R2 Improve incentive access

MSP, SPII, S11D, NIPP, AITF and B-BBEE ESD — increase visibility and uptake

R3 Focus on high-runner SKUs

Longer runs, better unit costs; plan tooling for Chinese/Indian brand models

R4 ARSO standards alignment

Dual-track: SABS domestic standards + ARSO alignment for AfCFTA market access

R5 Leverage OEM development instruments

Direct NIPP, AITF and B-BBEE ESD obligations toward local aftermarket supplier capacity

Overarching recommendations — apply across all three components

Demand visibility and coordinated planning · Skills audit and shared technical infrastructure · OEM–supplier collaboration (NIPP, AITF, B-BBEE ESD) · Production modernisation and incremental automation · AfCFTA export orientation

6.1.2 SNAPSHOT OF OVERARCHING RECOMMENDATIONS

The overarching recommendations reflect additional system-level interventions required to unlock and sustain localisation across all three shortlisted components, and beyond. While the component-level recommendations address product-specific constraints, the overarching actions speak to the enabling environment: the standards, capability, demand-predictability regarding high-running SKUs and regional-integration levers that repeatedly emerged throughout the study. These interventions sit above individual components and are intended to strengthen the competitiveness of local manufacture for the aftermarket, supporting firms, distributors, and enforcement agencies in building a more predictable, compliant and scalable operating environment. These overarching recommendations are summarised below:

- Reinforce quality, performance and standards enforcement across border and in-market channels to reduce unfair competition from under-spec imports.
- Strengthen input-cost and circularity systems, including the scrap-deposit framework and leakage control, to support material-intensive products.
- Expand capability-building support, including tooling, testing, certification, modular automation, and process improvement.
- Improve demand coordination by consolidating high-runner SKUs, introducing structured call-offs, and enhancing forecast alignment with major distributors.
- Leverage regional integration, including ARSO alignment and export partnerships with African automotive hubs, to support scale and broaden market access.
- Enhance market transparency and governance, enabling buyers to differentiate compliant from non-compliant parts.
- Beyond current incentive and funding mechanisms associated with tooling and R&D, it is also important to stress that further work could be done to incentivise manufacture and production in the aftermarket space (as with OEMs). Expanding the net for APDP2 and AIS (potentially, delinking the benefits for aftermarket players from the need for OE supply or online fitment) into the aftermarket could prove effective in this regard but should be seen as supplemental to abovementioned suggestions.
- Should there be no appetite for incorporating the aftermarket more formally into the incentives system, it is also possible to raise the limit on MSP (R10 million) which aftermarket players can already access.

6.2 Areas for further consideration

In addition to the above, specific consideration should be given to the following themes. While somewhat underexplored in the analysis, these themes could affect localising beyond the current analytical framework, and have been mentioned by some of the stakeholders as potential opportunities to explore further:

- Focusing, in the medium-term, on components where localisation signals are modest.
- Building export capacity to penetrate other markets strategically, especially under AfCFTA as the Rules of Origin for automotive components has been ratified.

Each suggestion is explored in more detail in the ensuing sub-sections.

6.2.1 FOCUSING ON COMPONENTS WHERE LOCALISATION SIGNALS ARE MODEST

Some stakeholders mentioned the need not to completely discount certain components. In some cases, the analysis to this point might have potentially excluded some components that warranted being on the list, while in other cases, the business case for a component is moderate, and would not have been identified in the analysis as a "low-hanging fruit" for localisation.

In either case, the definition of the components identified in this study warrants reiterating:

The ideal component for localisation is a high-volume, frequently replaced automotive part that can be produced competitively using local capabilities and materials. Success depends on achieving sufficient market volume, supportive policy and quality standards, and the ability to compete with imports on price and reliability.

This definition was built based on agglomerated feedback from stakeholders, as well as from the case studies where localisation of components has, and has not, worked.

As a result, by definition, many of the components excluded from the current analysis have neither the volume, nor the local manufacturing capacity or the price competitiveness to be considered feasible for concerted effort into further localisation.

With that said, the researchers are very aware that on the edges, there exist components that have sufficiently high volumes to have been marginally excluded from the shortlist of 12 components mentioned above.

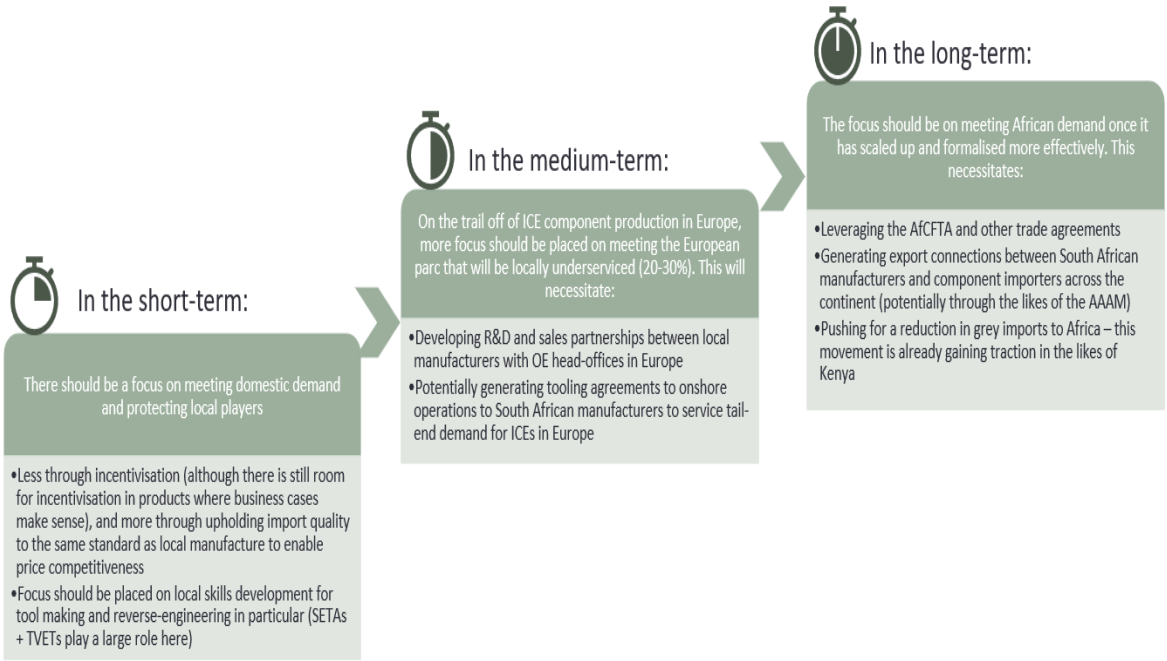
Based on the stakeholder engagements, and the data available, these components are as follows:

- **Shock absorbers:** Given the nature of local roads in South Africa, suspension system parts were flagged by two stakeholders as having a modest to high aftermarket potential, warranting some localisation. While these parts were not corroborated by other stakeholders or the data on aftermarket sizing, such a component is likely to meet the definition of high demand. These components require precision engineering, and a greenfield investment into the country which may be palatable in the longer-term.
- **Wheel and Engine Bearings**: Although no stakeholders mentioned that bearings warranted inclusion in the list, data signals were modest and indicated some aftermarket demand. These bearings are derivative intensive, and somewhat complex to manufacture in addition, but warrant mentioning given moderate signals in the trade and production data

- **Tyres**: Notwithstanding the example of a recent exit from the market (which was a function of global over-capacity and slow investment into manufacturing infrastructure), tyre data exhibited the strongest signal given prior production capacity, and high volumes in the aftermarket. Typically, tyre inputs are imported, and manufacturing processes are modestly value adding. Nevertheless, a blend of designated demand (i.e. predictable demand of a part through government sourcing), coupled with an improvement on structural constraints to the industry (as mentioned before) and more stringent application of anti-dumping protocols, make the case for tyres as a future opportunity, noting that value addition (and therefore total local content) on the component would be modest.
- **Belts and Hoses:** Drive belts and coolant hoses are regular maintenance items that warrant regular replacement, often made from rubber. One stakeholder mentioned the inclusion of such items in the list. While relatively simple to manufacture, the majority of the inputs into the production process are imported. In addition, given economies of scale enjoyed by large belt and hose manufacturing countries, price competitiveness for local production is low.

6.2.2 FOCUSING ON EXPORTATION

Export opportunities within Africa are most relevant where they materially strengthen the feasibility of local production for the shortlisted components by enabling scale, improving utilisation of existing assets, and lowering unit costs. The analysis below therefore focuses on specific African markets whose demand and capability profiles are aligned with the shortlisted components, rather than on Africa as an aggregate export market.

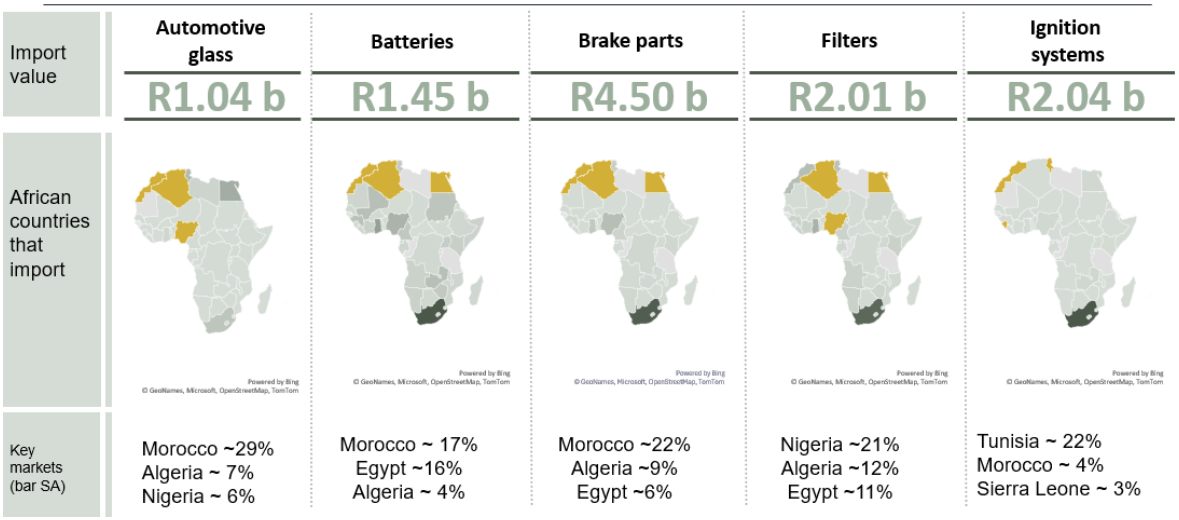


While the breadth of the African market and in fact the European market opportunity remains underexplored, there is a clear business case to promote additional trade in the medium- to long-term as and when local manufacturing in the aftermarket space becomes more globally competitive.

Of most importance in the short-to-medium-term is the ability to serve the African market in a price competitive manner (given the proliferation of grey imports across the continent).

The following infographic summarises import demand for multiple components that made evaluated in section 4 of this report where component market sizes tended to be largest (implying the largest opportunity for South African exporters):

Figure 60: Market sizing for particular component systems across Africa (2024 prices)



Source: Own analysis of data from (ITC trade map, 2024)

Given vehicle manufacturing nodes and pockets across many African countries (Morocco, Egypt, Algeria, Tunisia, Ghana, Kenya, and Nigeria most prominently), it is feasible to evaluate the sustainability of focusing on some of these markets in the medium-term in light of amended AfCFTA tariff phase-down schedules to foster price advantage.

Unsurprisingly, the North African countries (beyond South Africa) tend to show higher demand signals for the parts mentioned (together with South Africa, these markets account for ~80% of all vehicles produced on the continent[59]). This is due to the establishment of vehicle assembly capacity in these territories supported by preferential trade agreements especially with the European Union and other non-European member states.

Producers such as Morocco and Egypt sit in a uniquely advantageous position: they are geographically close to the EU and major Asian shipping corridors, and their automotive sectors are already heavily integrated into global OEM value chains. These two countries (consistently identified as becoming

59 (African Exponent, 2025)

Africa's principal manufacturing hubs) attract sustained foreign investment and operate at a scale geared toward European export markets[60].

Given their location, cost structures, and OEM integration, South Africa is unlikely to develop a comparative advantage supplying components into these markets, except in narrow cases where a South African-based OEM already has a second-brand or platform linkage that creates a natural entry point or the OEM has regional procurement and sourcing strategy. In those instances, supplying components not currently produced in North Africa remains possible, though still commercially challenging and limited in scope.

In contrast, a regional strategy focused on mid-sized African markets (notably Kenya, Nigeria, Ghana, and Uganda) offers a more realistic pathway to the continent. These countries have modest but growing automotive ecosystems, often built around indigenous manufacturers such as Innoson (Nigeria), Kantanka (Ghana), and Mobius (Kenya), rather than large integrated OEM supply chains.

Their demand profiles are smaller, but competition is less entrenched, and local productive capacity remains limited, leaving some foothold for South African firms to compete on reliability, proximity, and AfCFTA-aligned tariff reductions rather than trying to displace established North African export platforms[61].

These demand profiles are buttressed by a sizeable aftermarket proliferated by grey and used vehicles; given budget constraints locally, these markets may – in many cases – not support OE parts supply, but rather focus on purchasing at more price-conscious points in the market.

For these reasons, a targeted approach to serving moderate-volume, underserved regional markets is far more commercially plausible, while still keeping the door open for selective North African opportunities where OEM relationships in South Africa create a viable point of entry. To make this component–market alignment explicit, the table below summarises which shortlisted components are best suited to the priority African markets identified.

Table 24: Alignment of shortlisted components with priority African export markets

SHORTLISTED COMPONENT	POTENTIAL AFRICAN MARKETS	MARKET CHARACTERISTICS SUPPORTING EXPORT FEASIBILITY
Lead-acid batteries	East Africa (Kenya, Tanzania); West Africa (Nigeria, Ghana)	Large and ageing ICE vehicle parc; frequent replacement cycles; limited local battery recycling and manufacturing capacity in many markets, supporting sustained aftermarket demand.
Automotive glass	East Africa	High breakage rates and insurance-driven replacement demand; logistics advantages of regional proximity given transport sensitivity of glass products.
Brake pads and brake discs	Nigeria; Kenya	High-volume aftermarket demand; limited depth of local brake component manufacturing; strong presence of standardised global OEM platforms.
Filters (air, cabin, oil)	Pan-African, particularly East and West Africa	High-turnover service parts with predictable replacement cycles; broad applicability across ICE vehicles; fragmented local manufacturing base.
Spark plugs	Selected West and East African markets	Continued dominance of ICE vehicles; existing South African production capability; standardised component specifications across common vehicle platforms.

60 (African Exponent, 2025; Financial Fortune Media, 2025)

61 (Financial Fortune Media, 2025)

Source: Synthesised from key figures and tables in this report

Although based on limited information (and as a result, the subsequent analysis should be viewed as an entry point into export expansion for local firms), the following table highlights (i) price sensitivity in those countries, (ii) tariff advantages in light of AfCFTA, and (iii) where available, a sense of import prices for the most high-potential parts imported into these countries:

Table 25: Export opportunity analysis into Africa

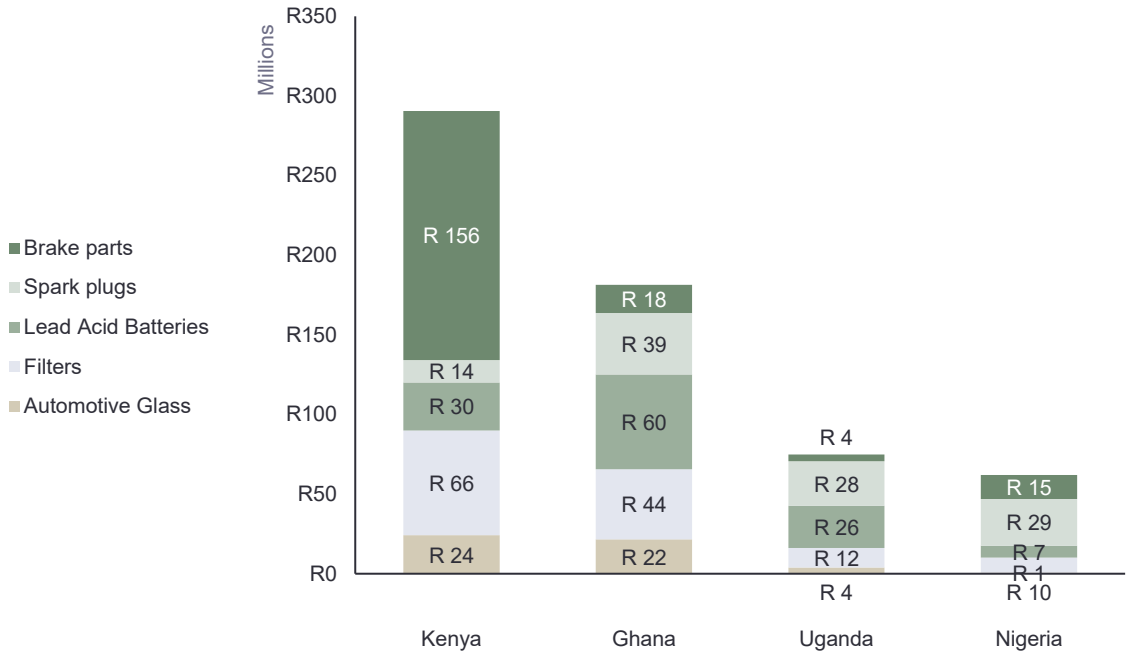
COMPONENT	IMPORTS (2024, USD '000)				PRICE ELASTICITY (DEMAND RESPONSE TO 1% PRICE RISE)				TARIFF TRAJECTORY (CURRENT → AFCFTA DRAWDOWN)			
	Ghana	Kenya	Nigeria	Uganda	Ghana	Kenya	Nigeria	Uganda	Ghana	Kenya	Nigeria	Uganda
Automotive glass	8,065	5,571	2,468	2,191	-1.11	-1.80	-0.11	-0.75	—	—	—	—
Filters	13,277	11,130	11,072	5,046	-1.38	**-2.46**	-0.36	-1.01	—	—	—	—
Lead-acid batteries	17,206	8,377	2,272	9,550	-1.44	-1.50	-1.37	-1.16	**15%→ 0%**	**25%→ 0%**	**15%→ 0%**	**25%→ 0%**
Spark plugs	1,356	2,164	1,950	485	**-11.88**	**-2.72**	**-6.28**	**-24.00**	—	—	—	—
Brake parts	5,705	12,316	2,689	4,027	-1.29	**-5.29**	**-2.34**	-0.44	—	—	—	—

Source: Own analysis of data from (ITC trade map, 2024)

Note: Elasticity figures show demand sensitivity to a 1% price increase. Darker values indicate higher sensitivity. Tariff trajectory shows reduction from current MFN rate to zero under AfCFTA drawdown; "—" indicates no specific trajectory modelled.

Based on this table, the following is the *annual* market share that can be obtained, per country and product, simply through the AfCFTA benefits and holding current production costs fixed (i.e. without suppliers changing their production prices):

Figure 61: Market sizing for particular component systems across Africa (2024 prices)



Source: Own analysis of data from (ITC trade map, 2024)

Although target setting is not in the ambit of this study, capturing some 10%-20% of this portion of the market would produce a not insignificant boost to aftermarket sales for South African producers, freeing up some (albeit modest) room to cross-subsidise prices locally to offset import price differentials discussed before.

Of course, market entry precipitates the need for additional effort to be expended by these local manufacturers; namely:

- **Secure market access approvals and meet regulatory standards:** Manufacturers need to ensure their products comply with local standards bodies, homologation requirements, and any mandatory certifications (e.g. KEBS in Kenya, UNBS in Uganda, SON in Nigeria, GSA in Ghana, until ARSO standards become universally applicable). This includes registering products, submitting technical documentation, and aligning packaging, labelling, and safety requirements with local regulations.
- **Build a reliable distribution and aftermarket network:** A market entry strategy depends on establishing local distributors, wholesalers, and service-partners who can hold inventory, support workshops, and manage last-mile delivery. Strong after-sales support (warranty handling, technical advice, training) is especially important in price-sensitive automotive aftermarket segments.
- **Structure competitive landed pricing through logistics and tariff planning:** Firms must map shipping routes and freight costs to ensure the landed price is competitive against imports from Asia and the Middle East. This often includes optimising shipment sizes, negotiating better freight terms, and exploring bonded-warehouse options where available.
- **Develop local demand through partnerships with OEMs, fleets, and workshop networks:** Manufacturers typically engage fleets, transport companies, retail chains, and informal workshops to drive product uptake. This can include technical demonstrations, discounted pilot programmes, training sessions, and co-branding, which help build trust in markets where unfamiliar brands face resistance.

6.2.3 EXTENDING APDP2 SUPPORT TO THE AUTOMOTIVE AFTERMARKET

The South African automotive policy framework, anchored in the South African Automotive Masterplan (SAAM) 2035 and operationalised through APDP2, has played a central role in sustaining vehicle assembly, incentivising component localisation, and supporting export competitiveness. Through production-linked incentives, APDP2 has successfully anchored investment decisions, rewarded local value addition, and provided certainty to OEM-aligned manufacturers supplying into on-line assembly programmes.

However, when viewed through the lens of the automotive aftermarket, a clear structural gap emerges. While the aftermarket constitutes a large, stable, and demand-driven segment of the automotive value chain - servicing an ageing vehicle parc and generating sustained replacement-part demand - it falls largely outside the scope of APDP2 support. Existing APDP2 benefits are explicitly tied to OEM production and export activity, with limited mechanisms available to support component manufacturing intended primarily for domestic aftermarket supply.

The study shows that many high-volume replacement components remain predominantly import-supplied, even where local technical capability and assembly capacity exist. In these segments, local manufacturers often face structural cost disadvantages related to input materials, scale constraints, and logistics, and therefore capture fewer of the benefits typically associated with local value addition and domestic input sourcing that are reinforced elsewhere in the automotive policy framework. Without access to comparable forms of production-related support, aftermarket manufacturers are less able to translate local capability into sustained competitiveness. As a result, the policy framework unintentionally reinforces an asymmetry: OEM-aligned production is actively supported and de-risked, while aftermarket manufacturing competes largely on an unsupported, import-exposed basis.

Importantly, this gap does not reflect a lack of strategic relevance. The aftermarket aligns closely with several of SAAM's core objectives, including employment retention, SME participation, transformation, and incremental localisation. It also represents an opportunity to deepen industrial capability beyond OEM assembly cycles, particularly as long-term vehicle ownership increases, and replacement demand becomes more prominent relative to new vehicle sales.

APDP2 is currently under review, creating an opportunity to reconsider how the programme interfaces with the broader automotive value chain. While recognising that APDP2 was not originally designed to support aftermarket activity, incorporating the aftermarket into the automotive support ecosystem - even at a high level - could materially strengthen localisation outcomes. This could include recognising aftermarket demand as a qualifying anchor for local production, reducing reliance on imports in high-volume replacement categories, and supporting manufacturers whose output services domestic rather than export-oriented markets.

At a strategic level, extending the principles of APDP2 - such as rewarding verified local value addition and anchoring demand certainty - to selected aftermarket components would improve policy coherence across the value chain. It would also ensure that localisation incentives better reflect the structure of actual domestic demand, rather than being concentrated solely at the point of vehicle assembly.

In this context, incorporating the aftermarket into the support network envisaged by APDP2 should be seen not as a departure from the Masterplan's objectives, but as a complementary evolution. Doing so would strengthen resilience, enhance competitiveness in replacement-part manufacturing, and support a more inclusive and demand-aligned localisation pathway for South Africa's automotive industry.

6.3 Monitoring and evaluating success with respect to performance

Localisation efforts only shift from ambition to implementation when there is a clear, consistent way to measure whether things are working. A monitoring and evaluation (M&E) framework does not need to be complex — but it does need to be honest. Without it, it becomes difficult to know whether investments in tooling, skills, and process improvements are translating into genuine capability development, whether trade measures are having the intended effect, or whether course corrections are needed before momentum is lost.

The framework proposed here rests on four practical indicator categories that together give a reliable picture of whether local production is becoming more sophisticated and more commercially viable:

Local value addition tracks the share of a component's cost that is contributed domestically — materials, labour, and overhead. Rising local value addition signals that manufacturers are deepening their integration into the production process rather than simply assembling imported inputs.

Firm capability development captures whether companies are investing in the processes and infrastructure that underpin competitiveness — tooling upgrades, automation, quality certification, and skills development. These are lead indicators: they signal future competitiveness before it shows up in market share or cost data.

Domestic market penetration measures the share of the South African aftermarket supplied by locally produced components. Growth here — particularly in segments where imports have historically dominated — is the clearest signal that localisation is taking commercial hold.

Cost competitiveness trajectory tracks how the gap between local and import prices is moving over time. The aim is not necessarily full price parity, but a credible narrowing of the gap that reflects real efficiency gains rather than protection alone.

None of these indicators require burdensome new reporting. All four can be tracked using information manufacturers already collect, supplemented by SARS trade data and existing audit channels. The intent is to monitor tangible trends, not to add a compliance layer.

Periodic evaluations — conducted every three years rather than annually — provide the opportunity to assess the cumulative effect of interventions: whether manufacturers are scaling, whether incentive spend has generated genuine capability rather than subsidy dependence, whether trade measures are shifting market dynamics as intended, and whether the export ambitions outlined in this report remain viable given how global and regional markets have evolved.

The purpose of M&E is not administrative. It is to ensure that localisation remains grounded in industry realities and that future decisions — on policy, incentives, and enforcement priorities — are based on evidence of what is actually working.

6.4 Concluding Statement

South Africa's automotive aftermarket stands at a pivotal crossroads - one where bold localisation can unlock new industrial dynamism, job creation, and regional competitiveness.

This study has identified, through a mixed methods approach, feasible components for localisation, blending data analysis with deep stakeholder engagement to spotlight high-volume, high-turnover parts such as brake systems, batteries, filters, and automotive glass.

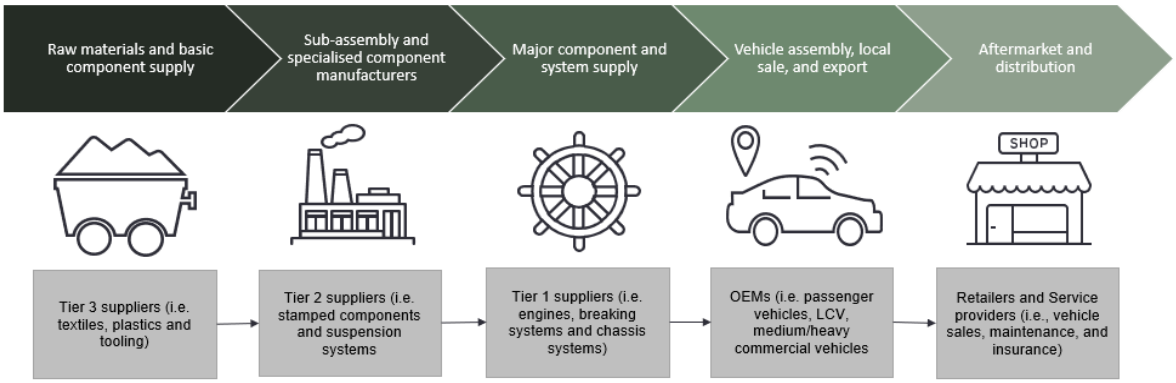
While challenges remain, ranging from price competitiveness and tooling costs to policy gaps and infrastructure constraints, the evidence is clear: with targeted incentives, stronger standards enforcement, and strategic partnerships, South Africa can build a resilient, world-class supply chain that not only meets local demand but positions the country as a pan-African leader in automotive component manufacturing.

By aligning policy, industry, and investment, stakeholders can transform the aftermarket into a growth engine for the nation, driving sustainable value for businesses, workers, and consumers alike.

Annexure A: Automotives Value Chain Analysis

The following provides a simplified view of the overarching automotives value chain:

Figure 62:Automotives value chain snapshot



As the figure above alludes to, South Africa's automotive value chain is a vertically integrated system that spans from raw material inputs to final vehicle assembly and aftermarket services. The focus of the ensuing analysis is on the OE portion of the value chain and is discussed in the next section in more detail.

A.1. OEM VALUE CHAIN

OEMs - BMW, Nissan, Ford, Volkswagen, Isuzu, Mercedes-Benz, and Toyota (with BAIC assembling CKD in Q1 of 2026) - each operate dedicated assembly plants and are supported by a multi-tiered supplier base. These seven OEMs produce passenger vehicles predominantly, with modest diversification into light commercial vehicles (LCVs)[62]. These OEMs serve as the primary drivers of industrial activity and investment in the sector, producing for both local purchase and export.

[62] It is also crucial to note that the likes of Mahindra operates in South Africa as an importer of vehicles into South Africa, making them a key component of the broader automotives value chain. Additionally, the likes of BAIC aim to establish a regional automotives hub in the Coega SEZ, and are expanding into the country, looking for partnerships with dealers, and service centres. Stellantis, another producer of vehicles, has signed an MOU to produce CKD units in the country aligned to Jeep, Fiat, Peugeot, Citroën, and Opel.

In 2024, South Africa produced a total of 599 755 vehicles (including the MHCV segment), accounting for 0.65% of global vehicle production and 50.9% of Africa's total output. The industry employed approximately 1.67 million people in across the direct, indirect and induced portions of the value chain (i.e. directly in the automotives value chain, in the supply chain for the automotives value chain, and in sectors where employees in the value chain spend their incomes), contributing 3.2% to GDP[63].

Table 26 outlines the primary vehicle category and locally manufactured models:

Table 26: Overview of the seven OEMs primary vehicle category and locally manufactured models

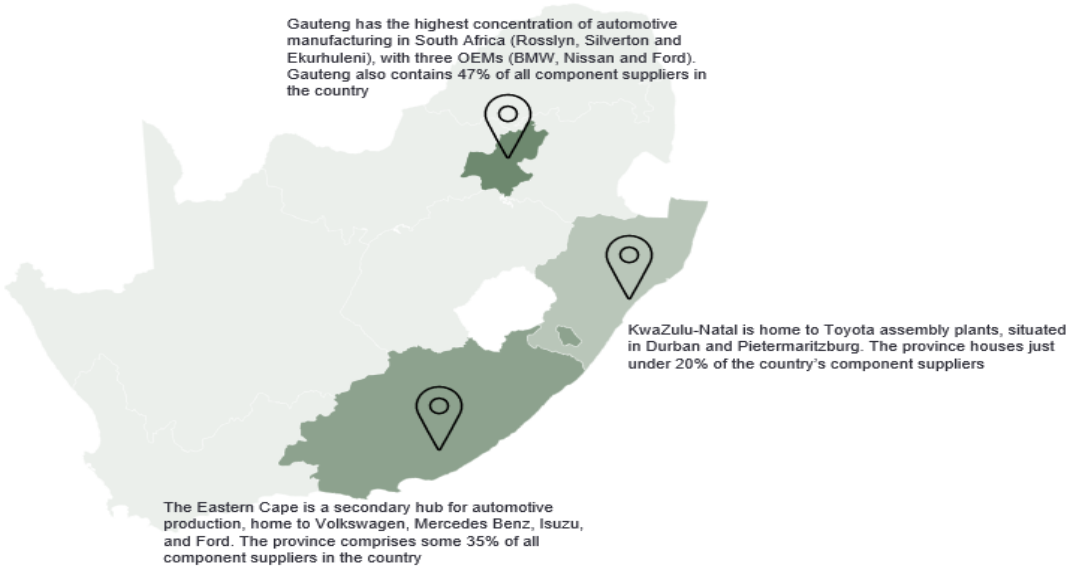
	OEM	Primary Category	Locally Manufactured Models
1		Passenger Vehicles	BMW X3
2		Passenger Vehicles	Navara, NP200, NP300
3		Passenger and LCVs	Ranger, Everest; VW Amarok
4		Passenger Vehicles	Polo (new and Vivo series)
5		LCVs and Medium/Heavy Trucks	D-MAX (Single, Extended, Double Cab), MU-X SUV
6		Passenger Vehicles	C-Class 4-Door
7		Passenger and LCVs	Corolla Quest, Cross, Fortuner, Hilux, HiAce, Quantum

Source: (Car Mag, 2023); (Dealfloor Motor Industry News, 2024); (Wiggil, 2025); (Volza Grow Global, 2025); (NAAMSA, 2025)

The map overleaf illustrates the geographic clustering of South Africa's automotive manufacturing hubs, showing the location of OEM assembly plants across Gauteng, KwaZulu-Natal, and the Eastern Cape.

63 (NAAMSA, 2025)

Figure 63: Geographic distribution of OEM assembly plants and automotive manufacturing clusters



Source: (ASCCI, 2021; NAAMSA, 2025); Note: The likes of Stellantis and the BAIC are anticipated to expand their operations in the Eastern Cape, while Mahindra is anticipating to set up an SKD plant in KwaZulu-Natal, though these have not been captured in the sources mentioned.

As part of South Africa's automotive ecosystem, the supplier base is structured into three tiers, each playing a distinct role in supporting the seven OEMs.

The Tier 1 segment comprises of approximately 180 globally integrated suppliers that supply directly to OEMs for vehicle assembly[64]. These firms are highly integrated into OEM supply chains, often with dedicated supply agreements, and typically manufacture major components or systems such as catalytic converters, braking systems, engines, chassis systems and exhaust systems.

Examples of Tier 1 suppliers include Benteler South Africa, Feltex, Yanfeng Automotive Interiors, Faurecia Interior Systems, Adient South Africa, Hesto Harnesses, Motherson, Sumitomo, Robert Bosch, and Mahle Behr[65]. Many of these suppliers are strategically co-located near OEM assembly plants, often within designated supplier zones or industrial development areas as described in the below figure.

64 (Auto Business Outlook, 2025)

65 (Auto Business Outlook, 2025)

Figure 64: Supplier zones and industrial development areas where Tier 1 suppliers are based



Source: (IOL, 2024); (Department of Transport, 2025); (Automotive Industry Development Centre, 2024); (COEGA, 2025); (NAACAM, 2025)

These zones are designed to reduce logistics costs, enable just-in-time delivery, and promote localisation by clustering suppliers within proximity to OEMs.

Tier 1 suppliers contribute significantly to the automotive value chain, accounting for around 40% of total value addition[66]. However, localisation remains a challenge (as will be discussed further on in the current report), with many high-value components still imported.

The Tier 2 segment includes medium-sized component manufacturers that supply sub-assemblies and specialised parts to Tier 1 firms. Examples include East Cape Manufacturing (ECM), which produces stamped and assembled components. Supreme Spring, a supplier of suspension components, and Auto cast, which manufactures cast iron components for engines and brakes. These firms are often locally owned and represent the most promising tier for localisation, investment, and transformation.

Tier 2 suppliers play a critical role in feeding into Tier 1 production lines, and their ability to meet OEM standards is essential for maintaining quality and delivery performance across the value chain. Many are based in regional industrial hubs such as the Eastern Cape, Gauteng, and KwaZulu-Natal, often

66 (Black, et al., 2020)

within supplier parks or adjacent to Tier 1 operations, allowing for closer integration and logistical efficiency.

NAACAM's LOOP is a digital platform that helps OEMs and Tier 1 suppliers identify and connect with local suppliers while ASCCI's Black Supplier Development Programme (BSDP) multi-stakeholder initiative established to improve the competitiveness of South Africa's automotive supply chain. Both platforms are actively supporting Tier 2 firms to scale operations, enhance productivity and integrate more deeply into OEM supply chains.

The Tier 3 segment encompasses small and micro enterprises that supply raw materials and basic parts such as plastics, rubber, textiles, fasteners, packaging, and tooling. These suppliers are typically South African-owned companies that sell sub-components and parts to Tier 1 and Tier 2 suppliers, who then use them to manufacture specialised systems and components. They are often located close to raw material sources and produce low-value components, making them critical for localisation efforts in areas such as packaging, tooling, and low-tech inputs. Examples of tier 3 companies include: ASC (Pty) Ltd - provides aluminium casting, Capewell (Pty) Ltd – provides fasteners and metal fittings.

This tiered value chain, however, excludes the country's aftermarket value chain to a large extent – as discussed throughout the body of the report, OEs typically have a modest hand in the current aftermarket structure, especially with respect to componentry (reserved, in most cases, for under-warranty vehicles currently). An appreciation of the aftermarket value chain is, however, crucial to underpin the analysis in the report further, and can be found in the next section, noting that Tier 1-3 manufacturers typically have not expanded into the aftermarket thus far.

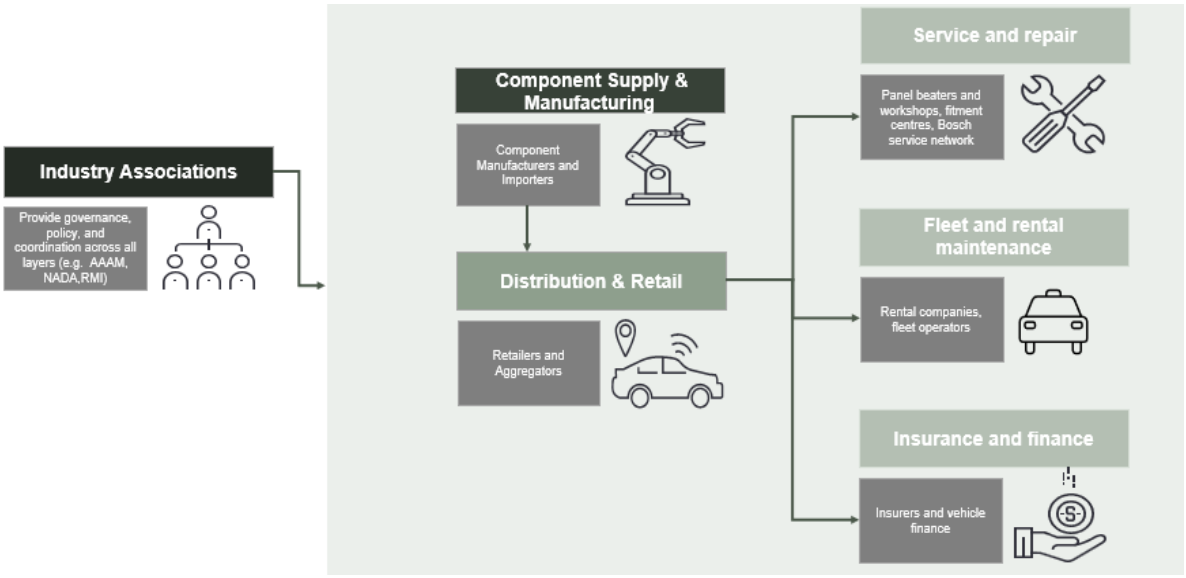
A.2 AFTERMARKET VALUE CHAIN

The South African automotive aftermarket plays a critical role in sustaining vehicle performance, safety, roadworthiness and mobility across the country's diverse and ageing vehicle parc. Unlike the OEM segment which is anchored by a handful of global manufacturers and their tiered supplier networks, the aftermarket is characterised by a broader and more fragmented ecosystem of importers, retailers, service providers, and financial intermediaries.

This section in the report aims to map the structure of the aftermarket value chain, identify key stakeholders and their interdependencies, and assess the flow of components and services from supply to end-use.

The figure below provides a simplified snapshot of the aftermarket value chain in South Africa:

Figure 65: After market value chain snapshot



The South African automotive aftermarket is governed and supported by a diverse set of industry associations, each playing a distinct role in shaping standards, policy alignment, transformation, and market coordination. These associations represent various segments of the value chain - from franchised dealerships and independent workshops to tyre retailers, component manufacturers body repairers, and remanufacturers.

Their collective influence extends across compliance, training, consumer protection, and localisation advocacy. Table 1 below outlines the key associations active in the sector, along with their core functions:

Table 27: Key automotive industry associations in South Africa and their functions

	Association	Function
1	RMI	Umbrella body representing eight associations in the automotive aftermarket. Provides advocacy, training, labour support, and consumer protection.
2	miwa	Represents independent workshops (general repairs, auto electrical, aircon, fitment). Focuses on technical standards and sustainability – falls under RMI.
3	TEPA	Represents tyre dealers, tool importers, auto part wholesalers and retailers. Promotes ethical trading and quality branded products – falls under RMI.
4	NADA	Represents franchised dealerships and used vehicle outlets. Advocates for dealer interests and OEM relationships – falls under RMI.
5	SAMBRA	Represents accredited motor body repairers. Regulates repair standards and collaborates with insurers and OEMs – falls under RMI.
6	ARA	Represents engine and component remanufacturers. Promotes reuse and sustainability in safety-critical systems – falls under RMI.
7	SAPRA	Represents petroleum retailers. Tracks global trends and supports profitability and sustainability – falls under RMI.
8	SAVABA	Represents commercial and bus body builders. Ensures compliance with NRCS and SABS standards – falls under RMI.
9	VTA	Represents private vehicle testing stations. Advocates for compliance with Road Traffic Act and SANS standards – falls under RMI.
10	AAAM	Pan-African body promoting industrialisation, investment, and regional value chains
11		Empowers black-owned automotive workshops and businesses across South Africa's aftermarket industry. Provides advocacy, training, and resources for inclusive growth.
12	naamsa	Represents vehicle manufacturers, importers, exporters, and distributors of cars, bakkies, trucks, and buses. Acts as the voice of the automotive industry, advocating for policy, competitiveness, and transformation.
13	NAACAM	Represents the automotive component manufacturers supplying OEMs, the aftermarket, and export markets. It also drives localisation, supplier development, and transformation.

Source: (RMI, 2025); (FAAA, 2025); (AAAM, 2025)

These associations collectively influence the regulatory, operational, and developmental trajectory of the aftermarket. Their engagement with government, industry, and consumers is essential to unlocking localisation opportunities and ensuring the sustainability of the sector.

While the governance layer provides structure, the operational core of the aftermarket lies in the flow of components and services from suppliers to end-users. This flow begins with component supply, which includes (i) domestic manufacturers and (ii) importers.

The NAACAM Business Guide 2024/25 classifies manufacturers into five categories. While some manufacturers are exclusively aligned to OEM assembly operations, others are more diversified and actively supply the aftermarket. For the purposes of this study, three of the five categories are directly relevant to the aftermarket localisation opportunity, and are therefore discussed in more detail next:

Figure 66: Aftermarket manufacturer categories in South Africa (local manufacturers)

1. Manufacturers and suppliers of both OE components and P&A (Parts & Accessories) + aftermarket/replacement components

- These firms operate across both OEM and aftermarket channels. They typically produce components on OEM-approved tooling and supply branded or homologated parts for warranty and service use, as well as for independent aftermarket distribution (e.g. Bosch, Metair Investments, Mahle Behr, Shatterprufe). These firms are typically tier 1 suppliers.

2. Manufacturers of accessories and replacement parts

- These firms focus on non-OE branded products, including styling kits, accessories, and generic replacement parts. Their products are typically sold through retail and fitment centres and may not be homologated to OEM specifications, but they serve a large and price-sensitive market (e.g. Bridgestone and Brink Towing Sytems). These are typically tier 1 and 2 suppliers that fall in other categories as well.

3. Suppliers of related/support products to the motor industry

- These firms provide essential inputs and services that support the functioning of the aftermarket value chain, including packaging, fasteners, tooling, testing equipment, and consumables. While not always visible in the final product, their role is critical in enabling production, distribution, and compliance (e.g. Heraeus, and Jendamark Automation). These are typically tier 2 and 3 suppliers.

Source: (NAACAM, 2024)

These categories represent the most viable entry points for localisation in the aftermarket.

Unlike Tier 1 firms that are exclusively tied to OEM assembly operations (with their aftermarket contributions often limited to warranty-aligned components; whose aftermarket contributions are often limited to components aligned with the typical warranty period of 4–5 years. These manufacturers are more responsive to local demand, price sensitivity, and service intensity. They also tend to operate with greater flexibility in sourcing, branding, and distribution, making them key stakeholders in any strategy aimed at expanding domestic manufacturing in the aftermarket segment.

Beyond domestic manufacturing, a significant share of aftermarket components are supplied through import channels. Importers play a central role in bridging the gap between global production hubs and South African demand, particularly for components not manufactured locally or for vehicle brands with limited domestic presence - such as Audi, Volvo, Landrover-Jaguar and Porsche. These firms source parts from a wide range of international suppliers and distribute these internationally sourced parts through national retail networks and independent workshops.

In addition to structured importers like Motus, the market includes a range of smaller and independent importers. OEMs import their own branded aftermarket components to support warranty servicing and long-term vehicle maintenance

Firms such as Grandmark International, ACA Auto, Sharp Auto Parts, Spartan Supplies, and Valid Trade SA operate across various regions and product categories. These importers supply niche components, accessories, and replacement parts to regional distributors, workshops, and fitment centres.

The aftermarket is heavily reliant on imports of replacement parts, particularly for older vehicles and non-OEM brands[67]. In 2021, South Africa imported R68.3 billion worth of replacement parts - an 18.6%

[67] (TIPS, 2024)

increase from the previous year - highlighting the continued dominance of imported components despite ongoing localisation efforts[68].

These imported components, along with locally manufactured parts, enter the market primarily through a network of retailers and aggregators that serve as the final link between supply and end-use.

The South African aftermarket retail landscape is dominated by national chains and regional outlets that stock a wide range of components, accessories, and consumables. These retailers serve both walk-in customers and trade clients, including independent workshops, fleet operators, and fitment centres. In addition to these outlets, OEM dealerships also supply branded aftermarket parts to support warranty servicing and long-term vehicle maintenance.

The figure below illustrates some of the key aftermarket retailers:

Figure 67: Key independent and national aftermarket retailers



Source: (Tyres & more, 2025); (Autozone, 2025); (Goldwagen, 2025); (Midas, 2025)

These retailers operate through a mix of company-owned stores, franchises, and distribution centres. Their scale and reach make them pivotal in shaping consumer access to parts. However, the efficiency and responsiveness of this retail layer is often enabled by aggregators - entities that coordinate supply, optimise inventory, and streamline distribution across multiple channels.

Aggregators play a strategic role in consolidating demand, negotiating supply contracts - including volume discounts and rebates, and coordinating distribution across multiple retail and service channels. Aggregators also often act as intermediaries between manufacturers/importers and retailers, leveraging economies of scale and data-driven insights to optimise inventory and pricing. A key aggregator in the South African aftermarket is TradeFed – the organisation coordinates supply across multiple retail outlets and service providers, supporting procurement, logistics, and market intelligence functions.

[68] (International Trade Administration, 2024)

Aggregators also contribute to localisation by identifying high-volume components and working with manufacturers to develop domestic sourcing strategies. Their role in demand forecasting and supplier coordination makes them valuable partners in any localisation initiative.

The service and repair segment of South Africa's automotive aftermarket is where components meet functionality - ensuring vehicles remain roadworthy, safe, and efficient throughout their lifecycle. This layer includes a wide range of service providers, from informal workshops to branded fitment centres, specialised repair networks, and service centres operated by franchised dealerships

South Africa's service and repair landscape is diverse, as depicted in the figure overleaf:

Figure 68: Service and repairs role-players



Source: (Furlonger, 2023): (Law Insider, 2025); (Bosch Service, 2025)

These service providers are critical in shaping aftermarket demand, especially for replacement parts, consumables, and accessories. Their proximity to end-users and responsiveness to vehicle parc dynamics make them key stakeholders in any localisation strategy.

While service providers form a critical interface between parts and vehicle functionality, fleet operators and rental companies represent a distinct and influential layer in the aftermarket value chain as well. These entities manage large, often standardised vehicle portfolios and operate on strict maintenance schedules, making them high-volume consumers of aftermarket components and services.

Fleet and rental companies typically engage in preventative maintenance, scheduled servicing, and rapid turnaround repairs to minimise vehicle downtime. Their procurement decisions are driven by cost-efficiency, reliability, and service network coverage - factors that directly influence demand for specific parts, brands, and service providers.

Key players in this segment include:

Figure 69: Players in the rental company space



Source: (Budget, 2025); (AVIS, 2025); (Europcar, 2025); (Tempest, 2025)

Beyond fleet operations, the insurance and finance segment play a pivotal role in shaping the structure and sustainability of South Africa's automotive aftermarket. These stakeholders influence how vehicles are financed, insured, repaired, and maintained. Key players in this segment include:

- **OUTsurance, Sanlam, and Auto & General** – offering vehicle insurance products that shape repair standards and parts sourcing.
- **SA Taxi** – provides a vertically integrated offering to small and medium-sized enterprises (SMEs) operating minibus taxis, combining vehicle finance, insurance, telematics, and refurbishment[69].

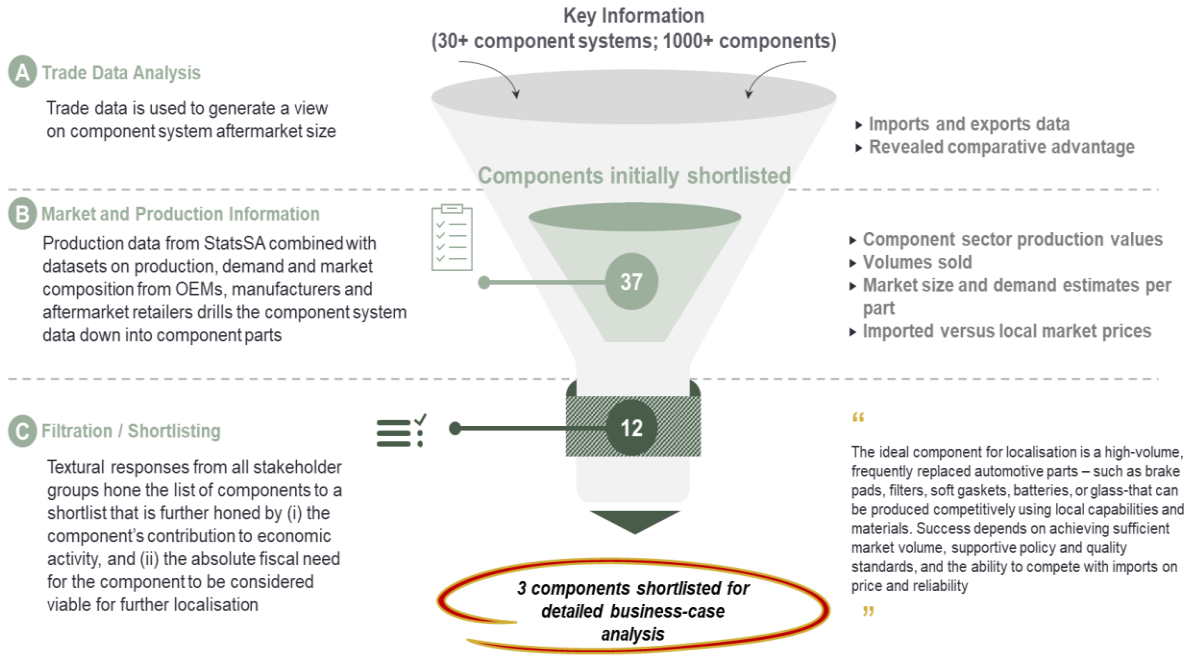
South Africa's automotive aftermarket is a dynamic and multifaceted ecosystem, shaped by a mix of formal and informal players, import dependency, and evolving consumer and fleet demands. While localisation opportunities exist - particularly among diversified manufacturers and strategic aggregators - the sector's sustainability will increasingly depend on regulatory alignment, quality assurance, and coordinated industry support. The next section explores the regulatory frameworks that underpin this landscape.

[69] (SA Taxi, 2025)

Annexure B: Detailed Study Methodology

This section provides a detailed view on the approach taken to shortlist the various components that have high localisation potential for the automotive aftermarket segment. The following figure summarises this filtering approach to the shortlisting exercise, with a more detailed description of each step provided below.

Figure 70: Overview of the Project Methodology



B.1. TRADE DATA ANALYSIS

Given the wide availability of trade data in a granular form, the first step in the filtration process was to unpack the trade data to estimate aftermarket size on a component system level. The "component system" level refers to an integrated network of sub-components or components. A brake system, for instance, which might comprise wiring, hosing, pads, discs, etc. "Sub-components or components", in turn, refer to the individual items making up the system – a brake pad is a component that feeds into a braking system. Sub-components and raw materials (i.e., inputs into manufacturing a component) are not the focus of the current study and have not been evaluated for localisation.

Although imperfect, trade data is a reasonable proxy for domestic demand and production, especially through the volumes channel. Generally, rising imports for a particular component indicates higher domestic demand, while rising exports suggest that local production is strong enough to meet domestic

and some foreign demand (the latter, indicating some degree of international competitiveness, albeit in pockets). In this study, export competitiveness refers to the ability of South African producers to supply external markets at a price–quality–lead-time combination that is sufficiently attractive for foreign buyers, even if only in specific product niches. It signals that local firms can operate at a scale, cost structure and reliability level that meets international purchasing requirements and therefore reflects pockets of globally competitive capability.

An increase in imports for a particular component signals an increase in domestic demand, while an increase in exports (net of re-exports) for a particular component signals an increase in domestic productive capacity that is sufficient to satiate local demand, while also servicing a portion of foreign demand.

The trade data is usefully set up to allow an initial estimate of aftermarket size per component system. The researchers, through engagements with trade experts, have developed the following formula-driven approach to estimate aftermarket sizing as shown below:

$$AV_i = TIV_i - RI1_i - RI2_i - D_i - OE_i + GVA_i$$

Where:

AV_i	Aftermarket Value (AV) of component system i
TIV_i	Total Imported Value (TIV) of component i (as per SARS trade data)
$RI1_i \; and \; R2_i$	SARS Rebate Items (RI) 412.26 and 412.27 for component i linked to OE on-line fitment (i.e., ex-aftermarket rebates).
D_i	SARS Drawback provision 536 for OE-related exports which, as a result, should be excluded from an estimation of the domestic aftermarket size.
OE_i	OE-designated imports under SARS chapter 98 for on-line fitment typically.
GVA_i	Gross Value Added from Standardised Industry Classification (SIC) 383 for the local manufacturing of motor parts and accessories.[70]

This formula is used to estimate the aftermarket value of a component system by adjusting total imports for known OE-related deductions and adding back local manufacturing value[71]. In addition, this formula is applied to all major component systems as outlined in NAAMSA's (2025) automotive trade manual, and produces a conservative view of aftermarket size in South Africa.

The estimates of aftermarket size that this approach yields are relatively similar to NAAMSA's (2025) view on component markets (barring some allocation assumption shifts between our approach and theirs). Importantly, the NAAMSA figures contain some degree of proprietary information, and could not be exactly replicated by the researchers, and therefore, this analysis relies on the estimates directly measured by the authors as opposed to the aftermarket size mentioned by NAAMSA (2025).

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[70] This amount is corrected for the proportion of OE componentry required based on the market shares estimated in the annexures – i.e., ~30% of the component market is estimated to utilise OE parts, while the remaining 70% is aftermarket oriented.

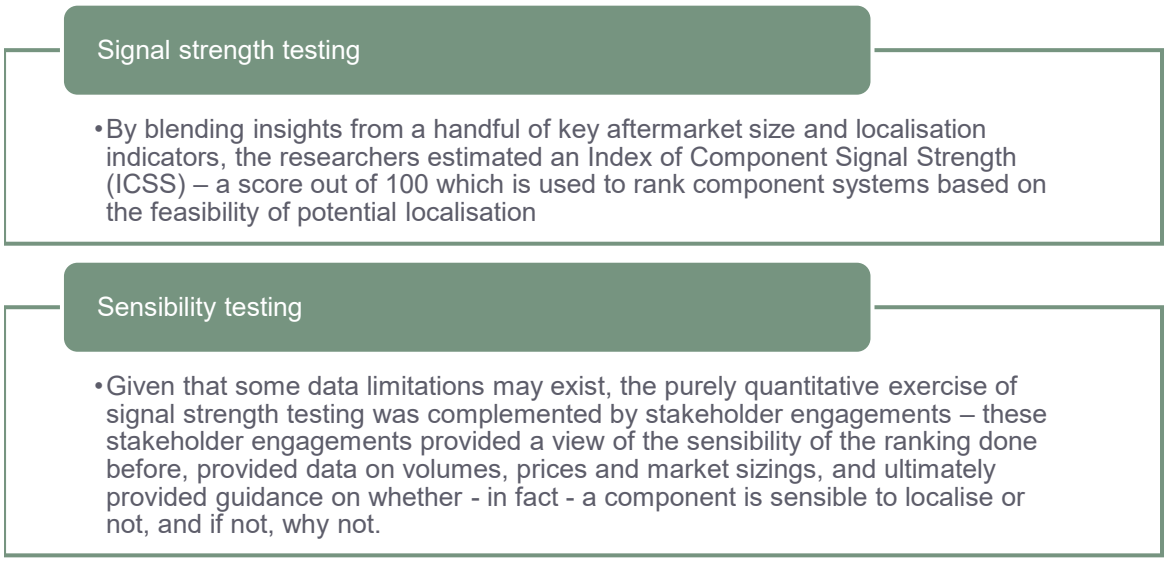
[71] While data for total imports and rebate items is available at the component system level, information on Chapter 98 imports, drawbacks, and GVA is not available to this degree of detail. Each is treated similarly, although Chapter 98 data will be re-treated based on responses to an OEM survey currently being pursued by the research team. This treatment allocates the agglomerated values in the drawback, Chapter 98, and GVA data proportionate to the total imports and exports (respectively) of each component system. For example, assuming that component X is 1% of all total import and export volumes of the component, then 1% is allocated from (i) all SARS drawbacks, (ii) all Chapter 98 imports, and (iii) all GVA. Although imperfect, this provides a Fermi estimate – a simple approach leveraged when complex analyses would otherwise require more resource - for aftermarket size which corroborates with available research on overall aftermarket size

This analysis provides an initial indication of key component system aftermarket sizes. As is discussed in the next sub-section, this component system information (housing 30+ component systems, and in excess of 1000+ components and sub-components) was then vetted and validated through reliance on additional market and product-level data.

B.2 MARKET AND PRODUCTION INFORMATION

Noting that trade data is insufficient on its own to fully describe the South African aftermarket, this data was complemented by a set of both qualitative and quantitative datasets generated through stakeholder engagements. A filtration process was then followed to hone the initial trade-data aftermarket view on component systems into a long-list of components which warranted further exploration.

Figure 71: Key approaches to evaluating localisation potential for component systems



This signal strength quantification is done by, as abovementioned, estimating an Index of Component Signal Strength (ICSS) through Principal Components Analysis (PCA).

PCA is a statistical approach that combines many indicators into one meaningful summary score. In this study, every component system has several pieces of information attached to it (as outlined in the following figure).

Many of these indicators overlap or move together. PCA removes duplication and identifies the combinations of variables that explain most of the differences between component systems. Instead of treating each indicator separately (and giving them subjective weights), the technique determines which indicators matter most and assigns data-driven weights, as outlined in figure 73.

Figure 72: Indicators feeding into the Index of Component Signal Strength (ICSS)

Market opportunity and demand indicators that signal market potential and sustainable demand to justify local production

- Import volumes and values
- Aftermarket volumes and values as calculated by the formula above

Existing capabilities and infrastructure indicators provide a view on current domestic capacity and established capabilities

- Export volumes and values

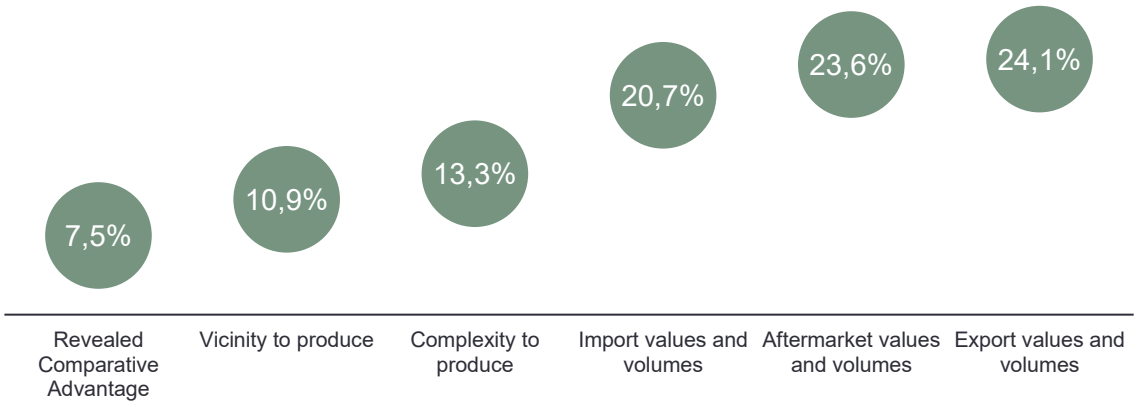
Production feasibility and competitiveness indicators that indicate conditions and competitive advantages for successful component production

- Revealed Comparative Advantage indicates South Africa's global competitiveness of production
- Complexity to Produce measures how difficult and technically feasible a product is to manufacture
- "Vicinity" to Produce indicates how close current manufacturing technology is to being able to produce a product.

Source: Own analysis of data from (ITC trade map, 2024); (South African Revenue Services, 2021-2025); (Stats SA, 2024); (Harvard University, 2025)

Based on this PCA, the following weightings indicate the value that the weighting technique placed on each indicator (each indicator weight is multiplied by each indicator to obtain a score from 0 - 100, with 100 indicating strong signals for localisation potential and high demand):

Figure 73: Indicators weights



Source: Own analysis of data from (Atlas of Economic Complexity, 2025) and (ITC Trade Map, 2025)

Considering that the components aftermarket is large, fragmented and measured inconsistently, no single metric (imports, exports, production complexity, supply or demand) captures the degree to which demand and localisation opportunities exist for these components.

PCA provides a useful first pass to blend all major indicators into one evidence-based ranking that shows which component systems stand out across multiple dimensions at once. This approach quickly narrows the long list (some 1000+ sub-components) into a manageable shortlist by identifying where demand, capability, feasibility, and competitiveness collectively point in the same direction. The result is a single index score (the ICSS) ranks component systems by the overall strength of the localisation signal.

This approach is not, however, without its drawbacks. As a result, the PCA shortlist still required sensibility checks with stakeholders, acting as a baseline from which stakeholder engagement could validate suggested shortlisted outcomes.

Based on this PCA approach:

- The most critical factors to evaluating the likelihood of localisation relate to the country's own productive capacity (as measured by export values and volumes as a proxy for domestic capability[72]), as well as the aftermarket demand for the products (as measured by aftermarket sizes in volume (units) and value).
- There is, however, some weight placed on whether we currently import the component systems (i.e. an agglomeration of various, similar components as opposed to the individual sub-components) or not. Importing these systems, in turn, signals potential volumes to localise[73].
- Relatedly, when correcting for the ability to be internationally competitive, and the degree of production complexity (these indicators – Revealed Comparative Advantage (RCA), vicinity, and complexity - combined account for ~30% of the index), there is an uptick in the likelihood for components to be localised successfully.

While the PCA provides a data-driven starting point for prioritising component systems, it is not (and should not be) used in isolation. Its purpose is to reduce a very large and noisy data set into an initial ranking that highlights where the strongest quantitative signals lie.

As previously noted, the PCA cannot capture many of the practical constraints, commercial realities, or operational nuances that shape localisation feasibility in South Africa's aftermarket. For this reason, the PCA outputs are deliberately subjected to a second, more critical layer of validation through stakeholder engagements. These engagements leverage lived experience and proprietary market intelligence that do not appear in the data (tooling requirements, derivative proliferation, pricing behaviour, IP constraints, and capacity limitations) to further hone the list.

In practice, this means that the PCA defines the analytical baseline while the stakeholders provide the ultimate filter. Stakeholder insights ensure that the final list reflects not only statistical signal strength but perceived viability. Resultantly, sensibility testing (the secondary layer of stakeholder re-engagement) was used to delve deeper into the underlying components driving the data signal strength at the component system level.

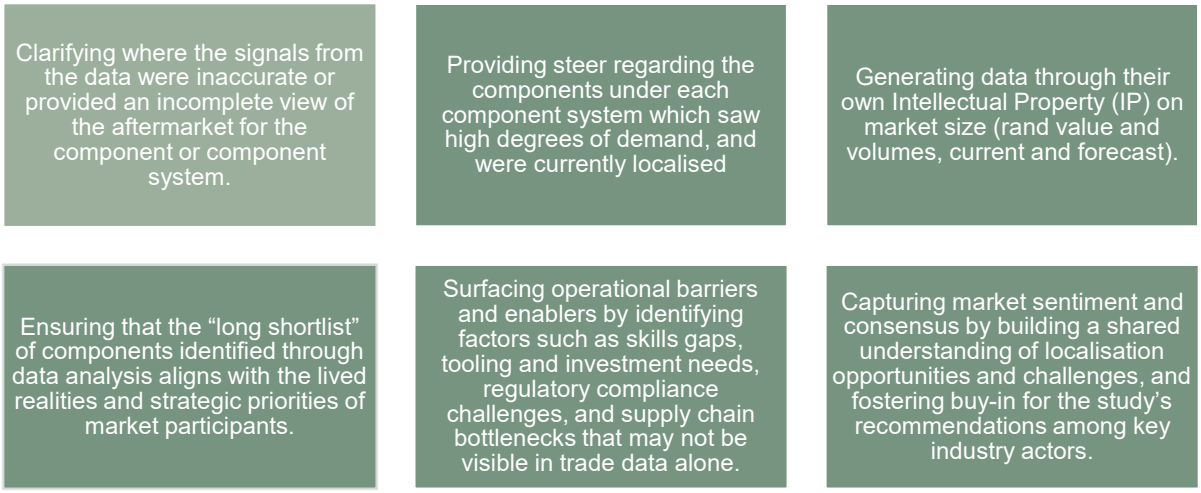
This sensibility filtering was an essential and integrated part of this study's approach, aiming to uncover a broader truth regarding the potential for localisation on a product-by-product basis. In particular, the stakeholder engagements assisted with:

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[72] It is important to note that many of these indicators are highly correlated – aftermarket value is, for example, calculated by using estimates of local production and importation per component. PCA is designed to handle situations where indicators are linearly related or move together by grouping correlated variables into shared components. Instead of letting overlapping indicators distort the analysis, PCA collapses these correlations into a smaller number of independent factors that capture the underlying signals in the data. This approach allows the index to reflect the real structure of the dataset while avoiding double-counting, ensuring that each dimension of localisation potential is represented once rather than multiple times (Joliffe, 2002).

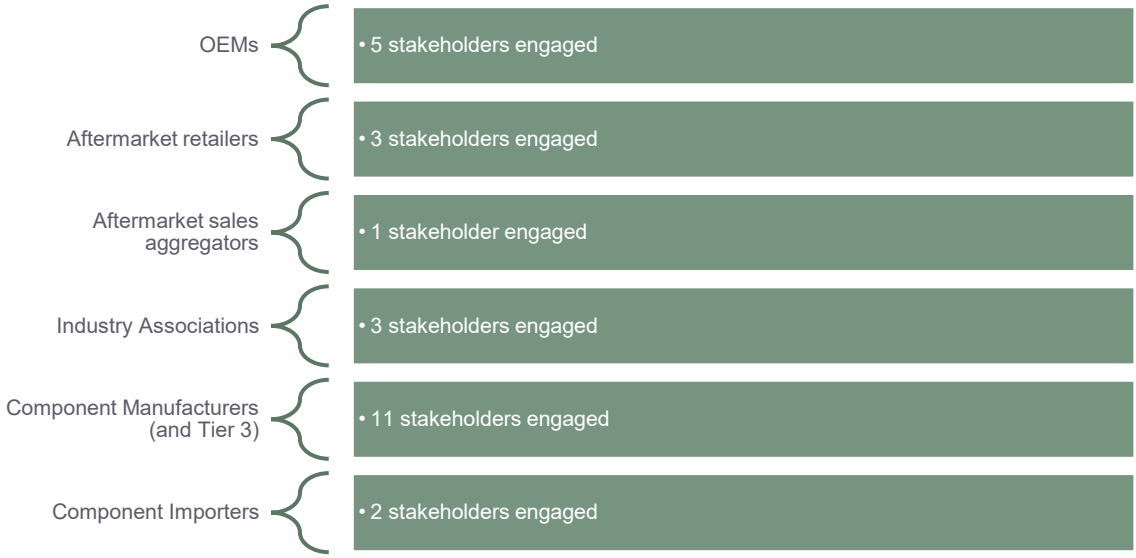
[73] It is important to stress that an increase in imports typically indicates limited or low manufacturing capacity. However, PCA – through the inclusion of other indicators regarding production vicinity, complexity, and revealed comparative advantage – theoretically strips out the cross-correlation between imports and an inability to locally produce, leaving behind the correlation on imports to do purely with market size.

Figure 74: Importance of Stakeholder Engagement for this Study



This study engaged 25 unique stakeholders spanning domestic OEMs, domestic automotive component manufacturers, automotive component importers and aftermarket retail sector in South Africa. The stakeholders are broken down into the following categories:

Figure 75:Stakeholder composition



This sensibility filtering, as will be shown in the following section, yielded a list of 37 components under multiple component systems that showed signals for high potential localisation, which then warranted further investigation.

Building on this, the final filtering exercise evaluated each component against a structured set of Critical Location Factors (CLFs) - the practical and structural conditions that either enable or inhibit viable local production of a given automotive component. These CLFs were derived from international literature on production localisation, automotive localisation trends, and South African industrial policy analysis, all of which consistently highlight that localisation feasibility depends on demand scale, supplier readiness,

technology and skills capability, cost competitiveness, regulatory environment, and institutional support systems[74].

The CLFs under evaluation are summarised in figure 76.

Figure 76: Critical Location Factors (CLFs) under evaluation



Source: (MIT and PwC; KPMG, 2023; IEEE, 2022; Monaco, Barnes, & Black, 2020; Mohlala & Munkuli, 2025)

The application of these CLFs based on stakeholder engagements and a complementary review of evidence then assists in further honing the list of components to a feasible shortlist of components for initial focus from a localisation perspective,

The application of this broad methodology to the data is described in the following section, with the ultimate outcome being a shortlist of components for localisation considered “the low hanging fruit” of the entire subset of all components in the system. As noted in the introduction, this list is based on a balance of evidence and should not be considered the sole list of components that can generate successful localisation outcomes.

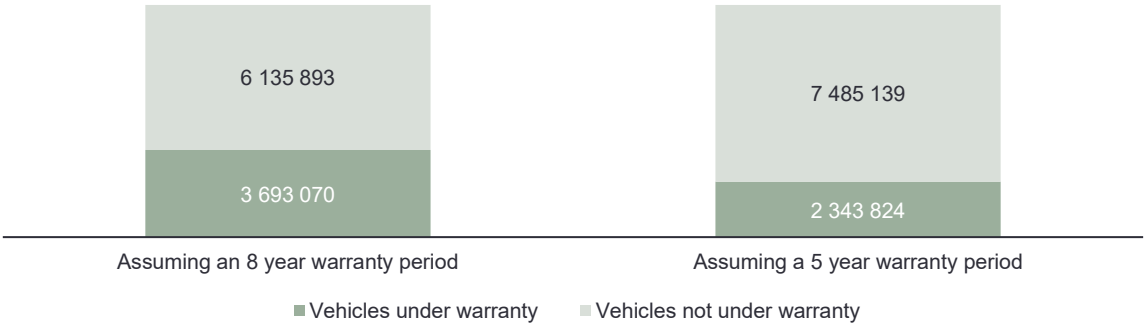
[74] The CLF framework applied in this study synthesises evidence from academic literature on production localisation, which identifies market demand conditions, labour and skills availability, infrastructure, regulatory context, and technological readiness as foundational determinants of localisation feasibility. This is demonstrated in Bjelkemyr et al.’s industrial and literature-based review of production localisation factors (2013), which synthesises 31 foundational studies and classifies localisation determinants into categories. Industrial and automotive-sector analyses further emphasise cost structures, supplier capability, policy incentives, and the strength of institutional support as critical enablers or barriers in localising component manufacturing. South African industrial policy research additionally highlights domestic constraints such as procurement challenges, regulatory blockages, and supply-chain capability gaps as core considerations in assessing localisation potential. Together, these sources provide the theoretical and empirical foundation for the CLFs used to evaluate the localisation viability of each component.

Annexure C: Business Cases Supporting Information

C.1 SUPPORTING ANNEXURE 1: OWNERSHIP PATTERNS BY PARC AGE

The following provides a summary view of ownership dynamics in the parc by age of vehicle:

Figure 77: Number of vehicles in parc under warranty versus not



Source: Own analysis of data from (Lightstone Auto, 2025)

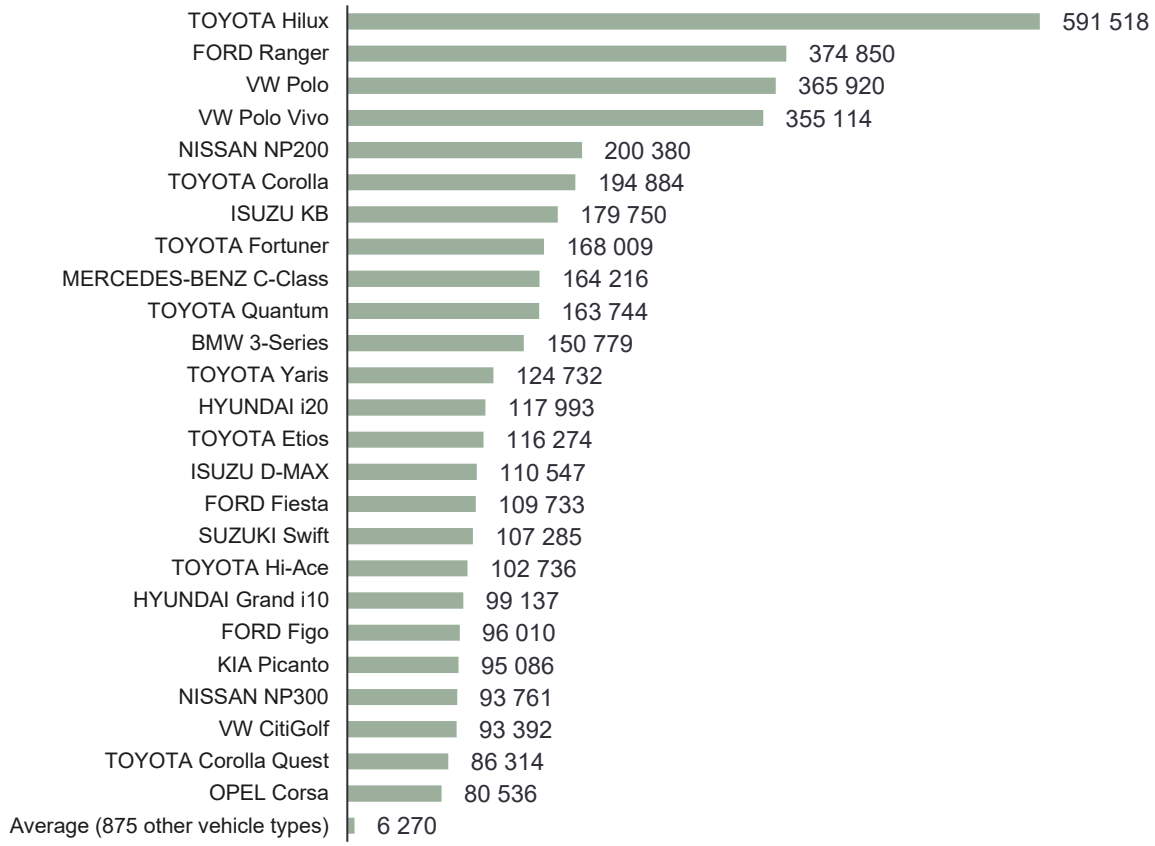
Although an incredibly simplifying assumption (which favours OE servicing), we have presumed that at between five and eight years of ownership, a vehicle is serviced purely by OEs, and thereafter, by the aftermarket. In the graph above, this translates to a proportion of vehicles under warranty between 24 and 37%, as quoted in the text.

This approach is a Fermi estimate for warranties, and is a broad enough range to capture stakeholder engagement findings – that between 20 and 40% of the aftermarket is serviced by OE components, with the remainder serviced by pure aftermarket players.

C.2 SUPPORTING ANNEXURE 2: PARC SPLIT BY MAKE AND MODEL

The following provides a snapshot of the vehicle parc as it stands by make and model:

Figure 78: Vehicle parc by make and model



Source: (Lightstone Auto, 2025)

C.3 Supporting Annexure 3: Forecasted parc composition by make and model up to 2035

The following table provides a forecast on parc composition of anticipatedly still active vehicles up to 2035, broken down by share of vehicle parc in 2025, 2030, and 2035:

	SUM OF SUM (1995-2025)	SUM OF SUM (2000-2030)	SUM OF SUM (2005-2035)
TOYOTA Hilux	622 226	792 197	954 886
FORD Ranger	403 181	561 257	732 068
VW Polo Vivo	381 496	530 107	704 895
VW Polo	376 800	421 451	444 021
HYUNDAI Grand i10	114 732	209 905	334 651
TOYOTA Fortuner	177 019	235 470	308 691
ISUZU D-MAX	124 205	201 486	293 966
SUZUKI Swift	120 231	191 391	275 893

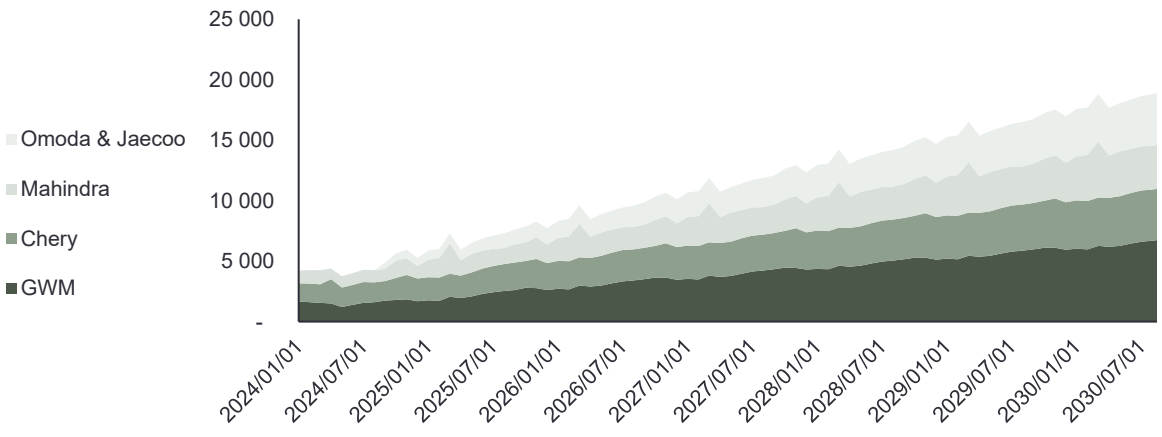
TOYOTA Quantum	165 003	192 964	227 821
NISSAN NP200	200 968	200 968	200 968
TOYOTA Corolla Cross	85 916	145 155	216 205
TOYOTA Hi-Ace	111 900	163 555	214 104
TOYOTA Starlet	76 513	127 091	188 647
HYUNDAI i20	122 194	146 693	175 845
RENAULT Kwid	76 996	118 988	169 287
TOYOTA Corolla Quest	90 031	123 431	165 982
KIA Picanto	97 090	124 537	159 937
TOYOTA Corolla	195 135	192 476	159 156
ISUZU KB	179 750	178 286	156 375
Average per 875 other vehicles	7 457	9 108	10 548

Source: Own analysis of data from (Lightstone Auto, 2025)

This forecast is based on 30 years-worth of historical data should also inform the priorities manufacturers – it is likely, for example, that the largest selling platforms remain the same over the 10-year period given their current market share. However, the likes of the Suzuki Swift and Hyundai i10 exhibit strong market growth and should be considered going forward as additional specifications for parts.

Importantly, given the current lack of data regarding other brands imported into the country (particularly, CBUs), it is difficult to forecast the composition of the parc in light of additional demand for such vehicles. Nevertheless, demand for these vehicles is on the rise. A simple forecast analysis using data for 2024 and 2025 (the latter, up to September) signals an increase in demand, as anticipated, with indications from the forecast exercise suggesting that these CBU brands are likely to constitute some 1 million units in the parc by the end of 2030:

Figure 79: Forecasted number of imported CBUs sold locally



Source: Own analysis of data based on engagements with NAAMSA

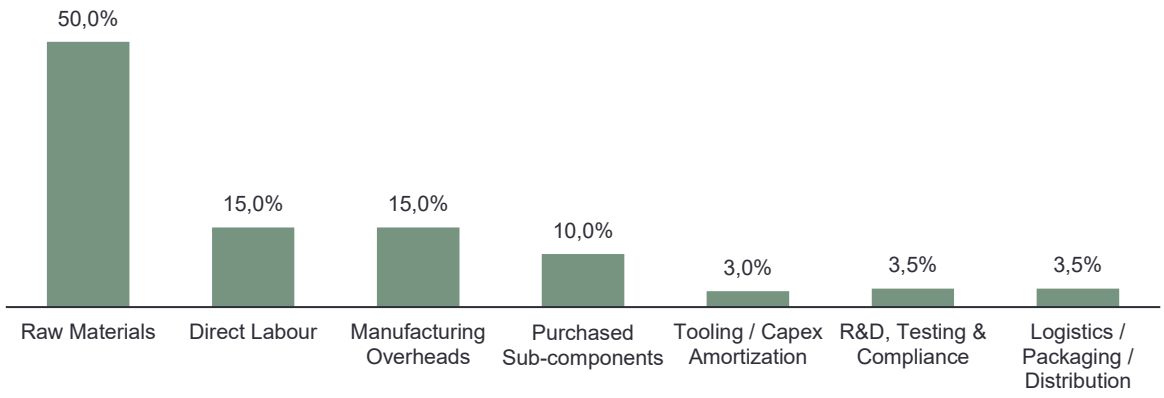
This trend translates to sales of ~100 000 units per annum for these vehicle brands by 2030 (roughly a sixth of all vehicle sales).

Importantly, this information is not available at the vehicle make level, but the trend indicates strong growth in the vehicle sales segment going forward. Additional thought should be given to approaching these CBU manufacturers at their headquartered location, and providing some partnership model whereby the components mentioned can be locally manufactured.

C.4 SUPPORTING ANNEXURE 4: COST BREAKDOWN ASSUMPTION SET PER COMPONENT

The following table provides a high-level snapshot regarding how cost components are calculated per component:

Figure 80: Typical component cost breakdown



Source: Own analysis of data based on stakeholder engagements, contrasted with evidence from (Statistics South Africa, 2023; Mabotja & Parker, 2019; Havenga; Ambe & Badenhorst-Weiss)

Importantly, this excludes VAT on purchases (which can be offset).

This view acts as a baseline, and unless stakeholders mentioned otherwise, these ratios were used to decompose median sales prices in the business case diagnostics sections.

C.5 SUPPORTING ANNEXURE 5: OEM SOURCING STRATEGIES AND NEW MODEL ANALYSIS

South Africa's localisation prospects in the automotive sector are shaped by the structure of global sourcing systems, which are designed to deliver consistency, manage risk and capture economies of scale for multinational OEMs. These systems are typically coordinated at global headquarters, where

supplier nomination takes place years before a vehicle reaches production[75]. The result is a procurement architecture that appears rigid from the outside but, when examined more closely, holds selective points of flexibility that can be leveraged by capable local suppliers. In practice, South Africa participates in these systems through a combination of historic supplier relationships, global Tier 1 affiliates and policy incentives that influence the economics of local production.

Global sourcing is highly centralised. OEMs manage their supply chains by issuing global supply contracts, with headquarters determining who supplies what and from where. The consequences of this model are particularly visible in the supplier networks for example Toyota, where the sourcing rules are explicit and strictly applied. For example:

- Toyota, from its head office in Tokyo, designates Toyota Boshoku as the global seat manufacturer for all Toyota vehicles worldwide. Wherever a Toyota plant exists, a Toyota Boshoku facility will be nearby to supply it.
- Yazaki is Toyota's globally appointed wiring harness manufacturer. Hesto Harnesses in South Africa manufactures Toyota's wiring harnesses locally because Yazaki holds a 25 percent shareholding in Hesto and has a Technical Assistance Agreement (TAA) in place (effectively making Hesto a Yazaki proxy).
- Denso, Toyota's HVAC and high-voltage systems supplier, similarly holds a 25 percent stake in Smiths Manufacturing in South Africa, enabling local supply under a global contract.

These examples illustrate the way global sourcing systems create access points for South African suppliers only when they are structurally connected to the globally appointed Tier 1 supplier. Participation therefore depends less on standalone local capability and more on being integrated into the global value chain through ownership structures, technical agreements or longstanding

[75] For ease of reference, the following new vehicle models have been confirmed for South Africa for the coming two years, although new models thereafter have not yet been announced or would infringe on IP of OEMs to mention here before a media mention:

OEM	MODELS	LIVE SOURCES
Toyota	New Hilux (9th Gen); Electric Hilux (under evaluation); New Fortuner; Land Cruiser FJ; bZ4X BEV; New RAV4 (Hybrid/PHEV)	[topauto.co.za], [iol.co.za]
Volkswagen (VW)	New T-Roc; Tiguan & Tayron 1.5 eTSI; Amarok Walkinshaw; Tarok (pending confirmation); Tengo (A0 Entry SUV, SA launch 2027); Updated Golf GTI	[carmag.co.za], [cars.co.za], [dfa.co.za]
BMW	New iX3 (Neue Klasse); New 3 Series (Hybrid & i3 EV); M2 CS; Next X5/X7; Refreshed iX	[carmag.co.za]
Mercedes-Benz	New CLA (mild-hybrid + CLA 250+ EV); Updated GLC; G-Class EV (G580 EQ); AMG GT 63 S E Performance; CLE 53; SL 63	[citizen.co.za], [topauto.co.za]
Ford	Revised Ranger line-up (2.3 EcoBoost, expanded V6 diesels, new Sport grade); Revised Everest line-up (Active series, 2.0 diesel, 2.3 EcoBoost, 3.0 V6); Ranger Plug-in Hybrid (PHEV)	[cars.co.za], [media.ford.com], [ford.co.za]
Nissan	Tekton (Qashqai replacement); New 7-seater (Renault Boreal-based); All-new Y63 Patrol	[citizen.co.za]
Isuzu	D-MAX platform/component upgrades (VSL facility); MU-X ongoing cycle; Expansion of SA truck manufacturing hub (future truck lines expected)	[autotrader.co.za], [pressportal.co.za]

partnerships. Although this structure limits independent supplier entry, it also means that localisation succeeds where global suppliers have already chosen to localise part of their operations in South Africa.

Similar patterns are visible across the broader OEM base. Ford's global sourcing decisions are made in Dearborn, Volkswagen's in Wolfsburg and BMWs in Munich. The South African plants execute these decisions rather than originate them. Yet, despite this centralised model, there are cases where OEMs have supported the establishment of local production, especially when substantial investment programmes create an incentive for global suppliers to locate facilities near assembly plants. Ford's supplier park in the Silverton Economic Zone is one such example, where global Tier 1 suppliers established local operations because programme scale, policy support and logistics advantages justified doing so. These cases show that localisation is possible when global procurement structures intersect with compelling local conditions.

There are also regional examples that introduce additional nuance. Stellantis applies a regional sourcing rule that requires a high share of components to be sourced from within the African region. This creates a theoretical opportunity for South African suppliers. However, with Morocco hosting two Stellantis plants supported by a mature supplier base, the competitive benchmark is high. South Africa can win localisation only where it demonstrates superior cost, quality or logistical advantages. Regional sourcing therefore creates openings but does not guarantee outcomes.

Sourcing dynamics evolve once a production programme ends. OEMs often reclaim tooling and consolidate production in higher volume plants abroad. However, when components are localised during the build phase and when suppliers have already invested in tooling and quality processes, production for warranty and aftermarket supply is more likely to remain local post the build programme. Conversely, if a part was never produced locally during the online fitment phase, the probability of later localisation is extremely low. This pattern reinforces the need for early localisation in order to secure long term industrial participation.

Localisation prospects are shaped not only by sourcing rules but by structural realities. South Africa's production volumes remain modest relative to major automotive hubs, and this limits the business case for high capex tooling. Infrastructure constraints, particularly those associated with electricity supply and logistics reliability, increase operating costs and influence global procurement decisions. Regulatory compliance requirements, including B-BBEE, add administrative obligations that competitor countries do not face. These factors constrain localisation, although they do not remove the possibility of targeted opportunities.

Despite these constraints, meaningful openings do exist. Local firms participate effectively where global Tier 1 networks have South African affiliates, where local production offers logistical or quality advantages (as in automotive glass), or where high aftermarket demand intersects with proven domestic capability (as in certain brake components). Batteries represent another opportunity, where South Africa's recycling ecosystem, if paired with improved enforcement and structured demand, could strengthen the competitiveness of local production. These cases demonstrate that global sourcing systems are not uniformly closed. Instead, they create selective opportunities that become viable when domestic capability, cost structure and supportive policy align.

In summary, although OEM sourcing decisions are largely governed offshore and within highly structured global systems, South Africa is not excluded from participating in these value chains. The opportunities are concentrated rather than broad, but they are significant where they exist. With coordinated action across industry and government, and by focusing on the specific points of intersection between global supply networks and domestic capability, South Africa can secure deeper and more durable localisation outcomes over time.

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