GAUTENG DEPARTMENT OF ECONOMIC DEVELOPMENT

2024

SECTOR PLANS



GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

GGT2030
GROWING GAUTENG TOGETHER

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FOREWORD



Mr Lebogang Maile

Gauteng MEC for Finance and
Economic Development

The Gauteng Province is the economic hub of the country and is well-positioned to lead the way in transformation, economic recovery and industrialisation. Despite its economic strength and the strong performance of tertiary services, the province is facing challenges in economic recovery, particularly in the manufacturing industry. It is important to focus on putting the economy on a path towards recovery to address the issues of poverty, unemployment, and economic inequalities in the province.

The Gauteng Provincial Government has embraced the Growing Gauteng Together Programme, referred to as the GGT 2030, as a plan of action aiming to achieve transformation, economic recovery, industrialisation and the development of the township economy. To reach this goal, GGT2030 specifies 10 high-growth sectors that are catalysts to fulfilling the vision outlined in the province's plan.

To effectively work towards the vision for 2030, the Gauteng Department of Economic Development, which is responsible for supporting and facilitating economic growth and development in the province, has created sector plans that are aligned with of the objectives of GGT2030. These sector plans aim to provide insights into the performance, challenges, and opportunities within the various sectors. They serve as a guiding tool for the department to advance the development of specific sectors and achieve small, medium, and micro enterprise (SMME) development, transformation and industrialisation.

To achieve the mentioned objectives and ensure that the sector plans foster inclusivity and economic development, a collaborative effort between the department and key stakeholders is necessary. This includes other government departments, the private sector, non-profit organisations, and tertiary and research institutions. This collaboration will ensure the growth and development of Gauteng.
To conclude, I would like to express my gratitude to all the stakeholders who have played a crucial role in supporting the province's aspirations. I invite all stakeholders to collaborate with the department to accomplish economic development and transformation in the province.

EXECUTIVE SUMMARY

Gauteng plays a crucial role in South Africa's economy, significantly contributing to the country's GDP and employment. Currently, Gauteng is experiencing a mixed economic situation characterised by robust growth in certain sectors and challenges in others. The province serves as the hub of finance, manufacturing, and services, but faces challenges such as high unemployment rates, economic inequality, and environmental issues stemming from industrial activities. However, there are opportunities within the expansion of green technology, digital innovation, and infrastructure.

The Gauteng Department of Economic Development (GDED) under Sector and Industry Development (SID) through the Economic Planning Branch, has developed various Sector plans. These plans outline strategic goals for various sectors. address different challenges comprehensively, leverage growth opportunities, and ensure sustainable economic development.
The department has developed sector plans for the following areas:

- **Manufacturing**: Reindustrialise by increasing productivity, adopting technology, and supporting SMMEs within the following sub-sectors: Aerospace & Defense, Automotive, Chemicals, Furniture, Clothing, Textile, Leather, and Footwear.
- **Construction:** Modernise construction capabilities, enhance infrastructure development, and drive economic growth.
- **Global Business Services (GBS) and Information Communication and Technology**: establish Gauteng as a leading destination for GBS and promote digital transformation, innovation hubs, and skills training.
- **Finance**: Our goals are to enhance financial services, increase access to funding for businesses, and promote investment.
- **Transport and Logistics: improving** transport infrastructure, optimising logistics, and supporting e-commerce to boost economic growth and streamline supply chains.
- **Cultural and Creative Industries**: Drive economic growth by nurturing local talent, promoting tourism, and encouraging creative entrepreneurship.
- **Green Economy:** achieve sustainable growth through investments in renewable energy, promotion of resource efficiency, and reduction of environmental impact.

The GDED sector plans aim to achieve significant economic growth, reduce unemployment, and poverty and leverage opportunities for growth and development across various sectors. These plans are aligned with the broader objectives of the GGT2030, National Development Plan 2030 (NDP), the South African Economic Reconstruction and Recovery Plan (SAERRP), Gauteng's Transformation, Modernisation and Reindustrialisation (TMR) programme and Integrated Resource Plan (IRP 2023).
Yours sincerely

Mr. Blake Mosley-Lefatola
Head of Department
Date: 26 July 2024

ACRONYMS AND ABBBREVIATIONS

Acronyms / Abbbreviations	Meaning
4IR	Fourth Industrial Revolution
AAAM	Automotive African Association of Automotive Manufacturers
ACES	Autonomous, Connected, Electric and Shared
AITF	Automotive Industry Transformation Fund
AFCFTA	African Continental Free Trade Area
AFI	Alliance For Financial Inclusion
AGOA	African Growth and Opportunity Act
AI	Artificial Intelligence
ADPD	Automotive Production Development Programme
AR	Augmented Reality
AU	African Union
BAAS	Blockchain-As-A-Service
BEE	Black Economic Empowerment
BBBEE	Broad-Based Black Economic Empowerment
BI	Business Intelligence
BIM	Business Information Management
BIMS	Building Information Models
BPESA	Business Process Enabling South Africa
BPO	Business Process Outsourcing
BPS	Business Process Services
CAGR	Compound Annual Growth Rate
CAMASA	Commercial Aviation Manufacturing Association of South Africa
CCI	Call Centre International (Pty) Ltd
CCTC	Cape Clothing and Textile Cluster
CCMG	Contact Centre Management Group
CESA	Consulting Engineers South Africa
CETA	Construction Education and Training Authority
CIDB	Construction Industry Development Board
CTCP	Clothing & Textiles Competitiveness Program
CTLF	Clothing, Textile, Leather, and Footwear
CGAP	Consultative Group to Assist The Poor
CNC	Computer Numerical Control
COE	City of Ekurhuleni
COJ	City of Johannesburg
COT	City of Tshwane
COFI	Conduct of Financial Institutions
COVID-19	Coronavirus Disease 2019
CRM	Customer Relations Management
CSIR	Council For Scientific and Industrial Research
CTLT	Clothing, Textile, Leather and Footwear

CTCP	Clothing & Textile Competitive Programme
DALRRD	Department Of Agriculture, Land Reform and Rural Development
DSBD	Department Of Small Business Development
DSPP	Defence Sector Productivity Program
DTIC	Department Of Trade, Industry and Competition
DLT	Distributed Ledger Technology
DTI	Department Of Trade and Industry
EU	Europian Union
ERM	Enterprise Resource Planning
EVS	Electric Vehicles
EPZ	Export Processing Zone
FMH	Furniture Manufacturing Hub
FP&M	Fibre Processing and Manufacturing
FIAP	Financial Inclusion Action Plan
FSPS	Financial Services Providers
FURNTECH	Furniture Technology Centre Trust
GBS	Global Business Services
GCR-EDP	Gauteng City Region Economic Development Plan
GDED	Gauteng Department of Economic Development
GDID	Gauteng Department of Infrastructure Development
GEM	Global Entrepreneurship Monitor
GGT	Ggt: Growing Gauteng Together
GDP	Gross Domestic Product
GEP	Gauteng Enterprise Propeller
GIIMP	Gauteng Integrated Infrastructure Master Plan
GGDA	Gauteng Growth and Development Agency
GGBSP	Gauteng Global Business Services Plan
GGT2030	Growing Gauteng Together Ggt2030
GICTDDP	Gauteng Information Communication Technology and Digital Development Plan
GRP	Gauteng Recovery Plan
GSDF	Gauteng Spatial Development Framework
GPG	Gauteng Provincial Government
GPFI	Global Partnership For Financial Inclusion
GT-LMP	Gauteng Transport and Logistics Master Plan
GVA	Gross Value Add
HCV	Heavy Commercial Vehicles
HRM	Human Resource Management
IAI	Informal Automobile Industry
ICASA	Independent Communications Authority of South Africa
ICE	Internal Combustion Engines
ICT	Information and Communication Technology/Technologies
IDC	Industrial Development Corporation of South Africa
IDP	Integrated Development Plans
IMF	International Monitory Fund

IOT	Internet of Things
IP	Intellectual Property
IPAP	Industrial Policy Action Plan
IRENA	International Renewable Energy Agency
IRP	Integrated Resource Plan
ITS	Information Transport Systems
ISO	International Organization For Standardization
ITO	It Outsourcing
ITU	International Telecommunication Union
IUDF	Integrated Urban Development Framework
JSE	Johannesburg Securities Exchange
KPO	Knowledge Process Outsourcing
KZN	Kwazulu-Natal
LCV	Light Commercial Vehicles
LPO	Legal Process Outsourcing
LSSI	Large Scale System Integrators
LVA	Low Voltage Alternator
MVC	Medium Commercial Vehicles
MRO	Maintenance, Repair, and Overhaul
MTSF	Medium-Term Strategic Framework
MBPS	Megabits Per Second
MIDP	Motor Industry Development Programme
ML	Machine Learning
MTBPS	Medium-Term Budget Policy Statement
MTEF	Medium-Term Expenditure Framework
NAAMSA	National Association of The Automotive Manufacturers of South Africa
NDC	Nationally Determined Contribution
NDP	National Development Plan
NEV	New Energy Vehicles
NQF	National Qualifications Framework
NRMP	National Rail Master Plan
NSDF	National Spatial Development Framework
NSDS	National Skills Development Strategy
NUA	New Urban Agenda
OECD	Organisation For Economic Cooperation and Development
OEMS	Original Equipment Manufacturers
OT	Operational Technology
PEVS	Plug-In Electric Vehicles
PRCC	Production Rebate Credit Certificate
PRMG	Provincial Road Maintenance Grant
RAMP	Road Assets Management Plan
R-CTLF	Retail Clothing, Textile, Leather and Footwear
R&D	Research and Development
RMG	Ready Made Garment
RPA	Robotic Process Automation

RRF	Rapid Response Fund
SAATM	Single African Air Transport Market
SABS	South African Bureau of Standards
SARB	South African Reserve Bank
SADC	Southern African Development Community
SADI	Strategic Aerospace and Defence Initiative
SAFI	South African Furniture Institute
SAERRP	South African Economic Reconstruction and Recovery Plan
SANDF	South African National Defence Force's
SANRAL	South African National Roads Agency Soc Ltd
SARB	South African Reserve Bank
SARS	South African Revenue Services
SBDA	Small Business Development Agency
SDG	Sustainable Development Goal
SDF	Sdf Spatial Development Frameworks
SEDA	Small Enterprise Development Agency
SEFA	Small Enterprise Finance Agency
SETA	Sector Education & Training Authority
SIC	Standard Industrial Classification
SID	Sector and Industry Development
SLA	Service Level Agreement
SMMES	Small and Medium-Sized Enterprises
SOES	State Owned Enterprises
SOPA	State of The Province Address
SSA	Sub-Saharan Africa
SSCM	Site-Specific Crop Management
SWOT	Strengths, Weaknesses, Opportunities, and Threat
TASEZ	Tshwane Automotive Special Economic Zone
TEDA	Township Economic Development Act
TER	Township Economic Revitalisation Strategy
TIH	The Innovation Hub
TIPS	Trade & Industry Policy Strategies
TMR	Transformation, Modernisation, and Reindustrialisation
TRIM	Trade Related and Investment Measure
TVET	Technical-Vocational Education and Training
UAV	Unmanned Aerial Vehicle
UK	United Kingdom
UN	United Nations
UAV	Unmannered Aerial Vehicles
USA	United States of America
VAA	Value Assembly Allowance
VALA	Volume Assembly Localisation Allowance
VCA	Value Chain Alignment
VDF	Visitor Declaration Form
VOD	Video On Demand

VR	Virtual Reality
WCM	World Class Manufacturing
WEF	World Economic Forum
WHO	World Health Organisation

GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

2024

Aerospace

SECTOR PLANS



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1. INTRODUCTION

The South African aerospace sector is a dynamic industry with a rich history of innovation, research, development, and manufacturing. It comprises approximately 104 companies of varying sizes, making it a significant part of the country's manufacturing sector. Despite its relatively small overall size, the sector boasts a highly skilled workforce that is among the highest earners within its industry segment. Moreover, it contributes significantly to the economy through substantial export revenues.

Additionally, the sector plays a crucial role in generating tertiary economic benefits. The skills developed within the aerospace sector are widely recognised for their spillover effect into other sectors, enhancing overall industry capabilities. Locally, the sector is predominantly focused on Maintenance, Repair, and Overhaul (MRO), with Aero structures, avionics, sensors, surveillance, and military sub-systems sectors each contributing roughly equally to overall turnover.
In July 2019, the Gauteng Provincial Government introduced the Growing Gauteng Together 2030 plan (GGT2030). This strategic initiative outlines the envisioned state of Gauteng by the year 2030. It builds upon the principles outlined in the National Development Plan and aligns with the ongoing efforts within the Gauteng Transformation, Modernisation, and Reindustrialisation (TMR) programme. Additionally, the plan aims to capitalise on the province's strategic position within a broader city region.
Addressing the pressing global challenges such as poverty, climate change, unsustainable growth, and economic crises, the GGT2030 serves as a comprehensive strategic response. Within this framework, the Aerospace and Defence Sector is identified as a pivotal focus, recognised among the ten key growth sectors driving economic expansion and development across the province. The GGT2030 underscores the Northern corridor, specifically Tshwane, as a hotspot for the aerospace sector due to its unique comparative advantage in aerospace manufacturing. This strategic positioning establishes Tshwane as a critical player in the province's economic growth and success in the aerospace industry.

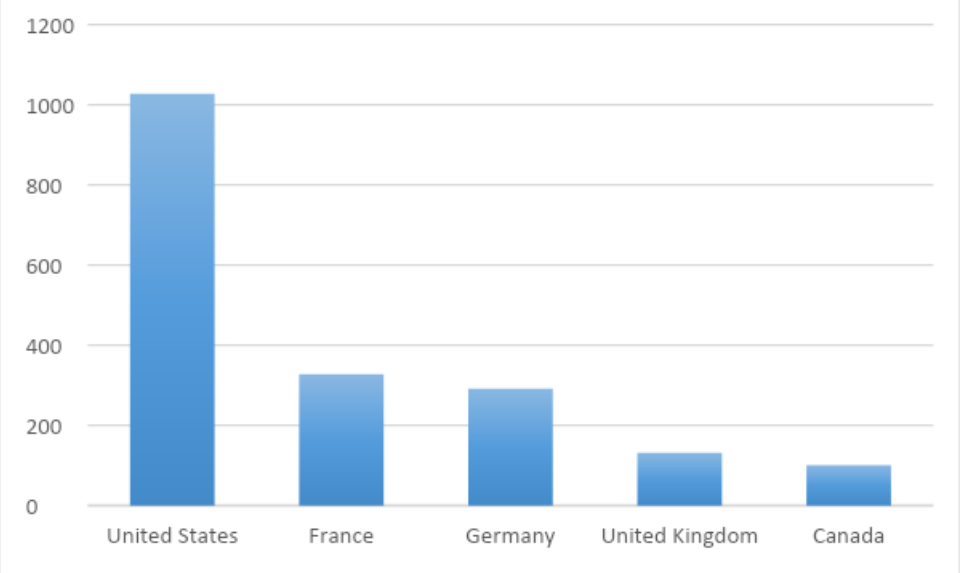
Gauteng, at the heart of South Africa's economic engine, envisions its aerospace sector becoming a cornerstone of innovation, economic growth, and global competitiveness. The Gauteng Aerospace Sector Plan is a strategic roadmap designed to propel the province to the forefront of the aerospace industry, by leveraging its unique strengths and capabilities. The plan aims to establish a thriving aerospace ecosystem that fosters technological advancements, attracts global investments, and significantly contributes to job creation and economic development within the province.

2. GLOBAL OVERVIEW

The aerospace and defence industry plays a vital role in the global economy by supporting and facilitating passenger transportation, trades, logistics, security and defence. The industry comprises several key players serving both commercial and military operations across the value chain. The major global players in the market include Airbus, The Boeing Co., Lockheed Martin, BAE Systems, Textron, Bombardier Inc., General Dynamics Corp., Northrop Grumman Corp., Embraer, and PJSC United Aircraft Corp. Within the global context, North America leads the global aircraft manufacturing market, accounting for nearly 38%; followed by the Asia-Pacific region at 21.4% and Western Europe at 17.6%. The global aerospace and defence market grew from $795.92 billion in 2022 to $855.62 billion in 2023 at a compound annual growth rate (CAGR) of 7.5%. However, the Russia-Ukraine war has disrupted the prospects of global economic recovery from the COVID-19 pandemic, at least in the short term. The conflicts have led to economic sanctions on multiple countries, a surge in commodity prices, and supply chain disruptions, causing inflation across goods and services and impacting many markets worldwide. Despite these challenges, the aerospace and defence market is

projected to grow to $1076.56 billion in 2027 at a CAGR of 5.9%.
The aerospace sector is geographically concentrated in the United States and France, with these two countries accounting for over 72% of the global turnover in aerospace. The following figure illustrates the top five leading countries with the highest aerospace exports in 2022 (in billions of U.S. dollars).

Figure 1: Top 5 leading countries with the highest aerospace exports in 2022 (in billion U.S. dollars)



Source: Export Gov 2024

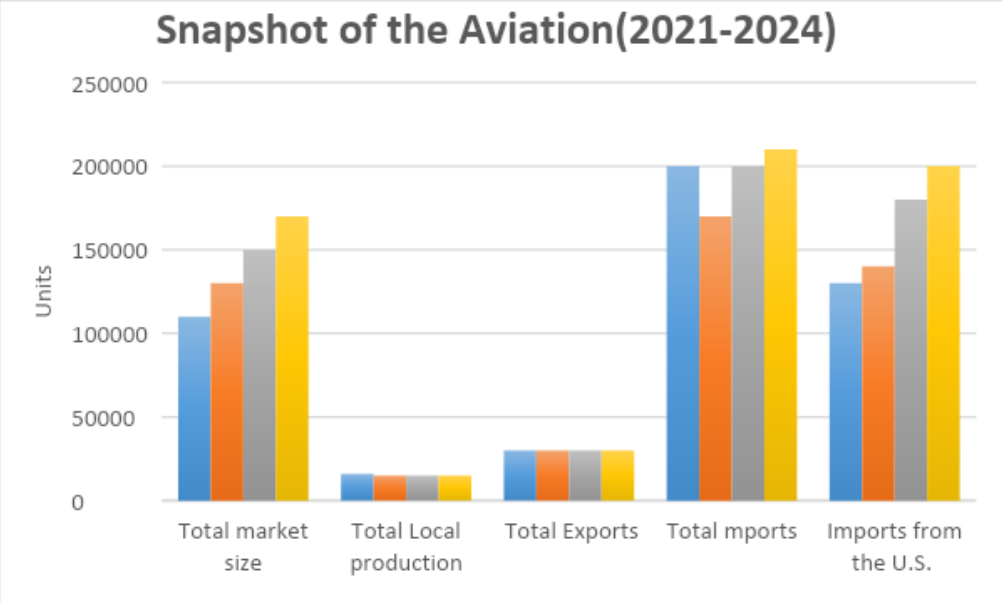
The United States is the leading country in the aerospace sector, primarily dominating at the level of the first-tier or primary contractors with $102.8 billion US dollars. France is the second largest with $32.8 billion US dollars followed by Germany with $29.2 billion US dollars. Germany performs well in the aerospace sector, identified as a priority sector by the Ministry of Economic Affairs and Energy. The strong industrial core in Germany includes commercial aircraft, business jets, turboprops, helicopters, UAVs, structures, propulsion systems, subsystems for aerospace vehicles, and military aircraft.

3. NATIONAL OVERVIEW

South Africa has strategically positioned itself as a formidable contender on the global stage within the aerospace and defence industry. It holds a dominant position as the leading market for business aircraft in Africa, underscoring its prominence in the regional and international aviation landscape. South Africa boasts a fleet exceeding 400 aircraft, more than three times larger than that of Kenya, the second-largest market in the African region. Within the spectrum of commercial airlines in Sub-Saharan Africa (SSA), South African Airways ranks as the second largest by fleet size, operating a robust fleet of more than 60 aircraft.
According to the Invest SA 2020 fact sheet, the aerospace and defence industry in South Africa commands substantial annual revenues, totalling approximately US$2.3 billion. Contributing significantly to the global aerospace sector are numerous local companies that play a pivotal role in supplying cutting-edge components and high-tech parts. These contributions include turbines, dashboards, controls, and wings; showcasing South Africa's expertise and influence in the global aerospace landscape. Furthermore, the country has developed robust design and manufacturing capabilities with local companies now supplying tier-one components across the global value chain. However, local manufacturing is highly concentrated in Gauteng and the Western Cape.

3.1 SNAPSHOT OF THE AEROSPACE SECTOR

Figure 2: Snapshot of the Aerospace Sector



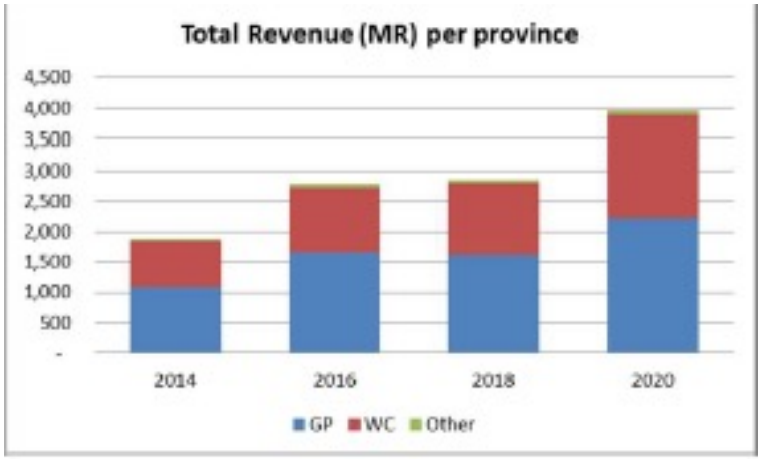
Source: Export gov, 2024

As seen in the figure above, the local aerospace sector in South Africa is an emerging industry. Although local production has not made a significant impact on the sector, it is expected to grow by close to 10% over the next 4 years. The local aerospace sector relies heavily on imports due to the underdeveloped local market. More than 60% of these imports come from the United States. According to IERI (2008), the high import levels from the United States are attributed to the lack of economies of scale and the domination of multinationals focused on local sales. Moreover, imports in aerospace are expected to grow by 5% per year. To support the scaling up of local production, the sector needs protection against international competition. According to the Commercial Aviation Manufacturing Association of South Africa (CAMASA, 2018), 90% of the aerospace activities are concentrated in Gauteng and the Western Cape, with Gauteng accounting for 60% and the Western Cape 30%. Several tier 1 and tier 2 companies mainly operate in Gauteng, while the Western Cape in collaboration with the University of Stellenbosch, has a smaller hub. The sector is highly concentrated in a few large organisations, although the segment consisting of small, medium, and micro enterprises (SMMEs) is gradually growing. In 2007 it was reported that SMMEs comprised approximately 75% of the organisations in the sector. The main sector players are Denel Aerostructures and Aerosud.

3.2 Total Revenue Per Province

The figure below reflects the total revenue for the aerospace sector per province in South Africa. Gauteng generates the highest marginal revenue within the aerospace sector, followed by the Western Cape. This demonstrates that Gauteng and the Western Cape dominate the South African aerospace sector. The total revenue for both provinces has been growing at a rate of more than 40%.

Figure 3: Total Revenue Per Province

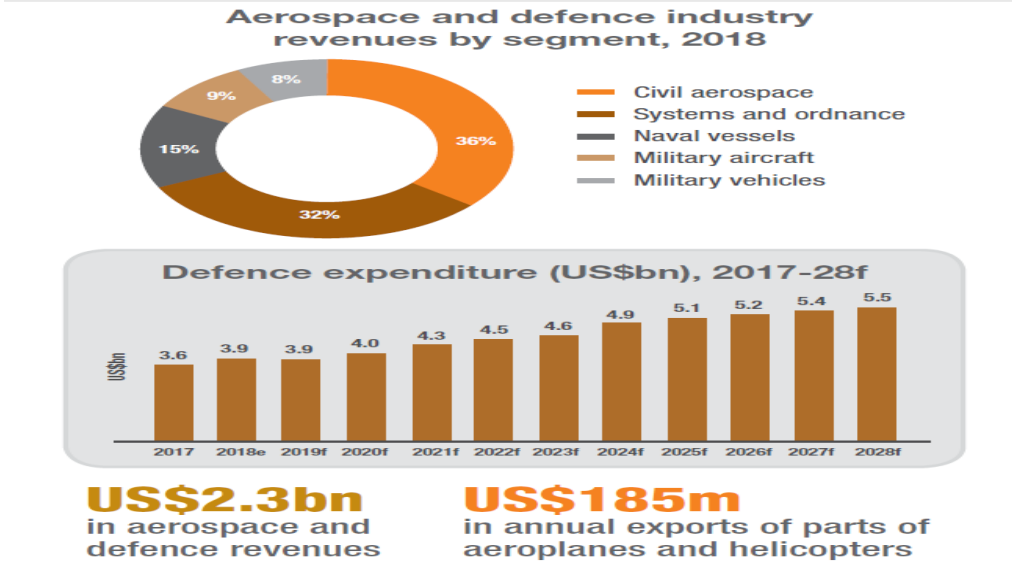


Source: CAMASA,2018

3.3 Total Revenue Nationally

- The annual revenues of the aerospace and defence sector in South Africa amount to approximately $2.3bn.
- Several local companies supply high-tech parts and components including turbines, dashboards, controls, and wings to the global aerospace market. In 2018, the sector exported aeroplane and helicopter parts valued at $185 million.
- South Africa is also among the world's leading manufacturers of armoured vehicles. In 2017, it exported armoured vehicles valued at R1.5 billion, accounting for nearly 50% of the country's overall defence equipment exports.

Figure 4: Annual revenue



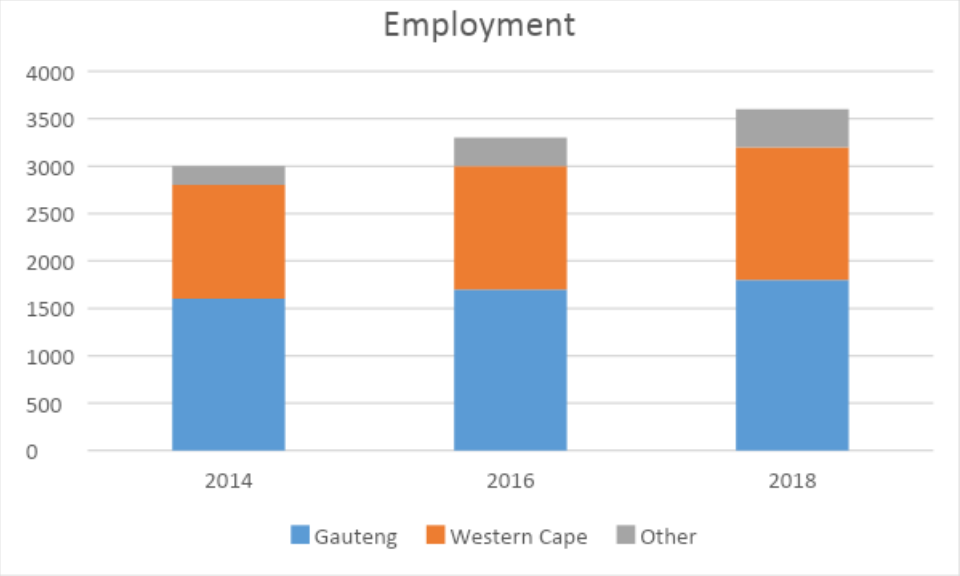
Source: Invest SA, 2020 - South Africa Fact Sheet 2020

3.4 Employment

The composition of employment in the aerospace sector has undergone considerable changes over the last decade. These changes may result from various factors, including the dynamic nature of

the aerospace industry and the adaptation of South Africa's sector to shifts in international markets. Currently, the sector employs more than 3000 skilled personnel.

Figure 5: Employment



Source: CAMASA, 2018

The figure above shows that Gauteng is the largest employer in the aerospace sector with more than 1500 skilled personnel; followed by the Western Cape with over 1000 skilled personnel from 2014 to 2018. The remaining seven provinces contribute only marginally to the aerospace labour market.

3.4.1 Employment in the Segments of Aerospace Sector

The figure below depicts employment in different segments of the aerospace sector. According to the figure, 37% of employment is in Surveillance and Sensors, and Avionics, primarily based in Western Cape. Maintenance, Repair, and Overhaul (MRO) accounts for 32% of employment, with most companies based in Gauteng. Military Systems comprise 15% of employment, while the Aerostructures sector, based in Gauteng, accounts for 13% of employment.

Figure 6: Employees per Aerospace Sector Segments

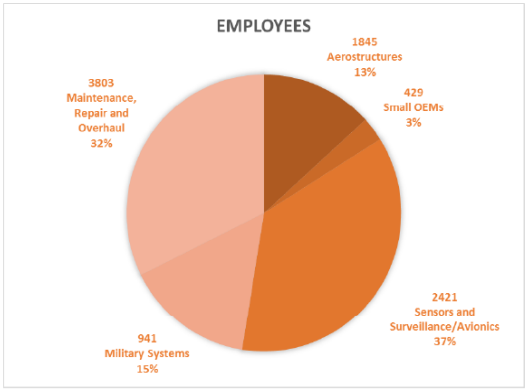


Figure 21: Employees per revised sector according to industry engagements

Source: Commercial Aviation Strategy 2019

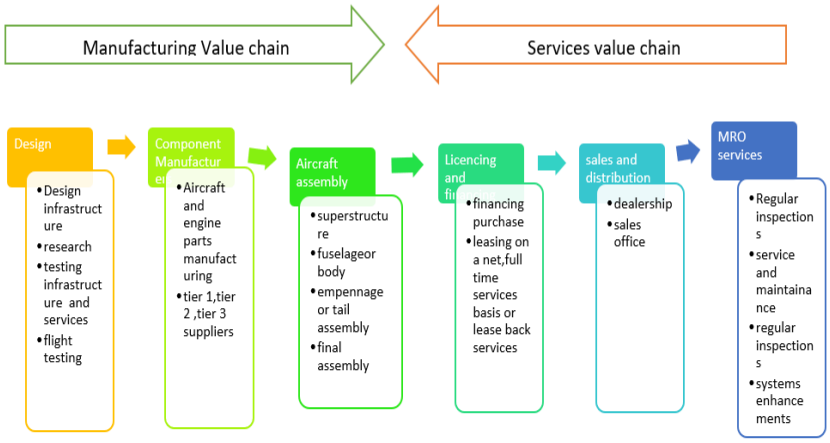
The Aerospace Sector is a highly technical and skilled segment within the manufacturing industry. For instance, the MRO (Maintenance, Repair, and Overhaul) activities rely on skilled and certified

individuals but do not necessarily require professionally qualified skills. In contrast, the aerostructures sector requires trade and artisanal skills are critical to these sectors. The electronics and military sub-systems sectors employ the highest proportion of university-qualified personnel and rely heavily on universities to provide highly qualified graduates.

4. VALUE CHAIN OF THE AEROSPACE SECTOR

The aerospace sector comprises the largest value chain network compared to other industries worldwide. The sector is densely based on innovation and knowledge sharing, with each tier contributing value to components and assembly of parts and services. Below is the depiction of the value chain and its description.

Figure 7: Value Chain Analysis



SOURCE: IJEMR 2018

- Design: It is heavily oriented around engineering and R&D processes. The design phase primarily commences from customer demand, configuration and industrial specifications. An aircraft assembly takes at least five years to design, build, test and prototype. Research mechanisms such as aerodynamics, engine and fuel system and communications, along with prototype testing like wind tunnels and engine testing facilities, are aligned with requisites like cost, performance, reliability, maintainability, and vulnerability. The transformation towards automation has enhanced the advancements in precision machine tools and components, further refining the design and manufacturing processes.
- Component Manufacturers: The aerospace sector value chain is segmented into several tiers based on value addition, consisting of three primary tiers operating at different levels.
    - Original Equipment Manufacturers (OEMs): This tier includes manufacturers of aircrafts such as Airbus, Boeing, HAL, Bombardier, and Embraer. OEMs outline specific requirements and specifications that Tier 1 suppliers are expected to manufacture, ensuring that components and systems meet stringent industry standards and performance criteria.
    - Tier 1: It includes manufacturers of aerostructures, avionics systems, engines, and other critical systems. Tier 1 suppliers act as Large-Scale System Integrators (LSSIs), enhancing the complexity and integration of the modules they manufacture.
    - Tier 2: It compromises manufacturers of landing gear, actuator subsystems, sub-

assemblies

- Tier 3: Consists of companies that produce components and parts needed by Tier 1 and Tier 2 suppliers. These manufacturers provide the foundational elements required for the assembly and functionality of aerospace systems and subsystems.

- Aircraft Assembly: The aircraft assembly process involves both manual and semi-automated operations. Key activities include Structural Configuration (drilling, fabricating, and assembling fixtures and components) and Fuselage Assembly (involves riveting and fastening operations that follow the assembly of various components and systems). These processes are critical to ensuring the structural integrity and functionality of the aircraft as it progresses through assembly stages.
- Leasing and Financing: Aerospace finance can be costly but is generally secure due to international regulations such as the Cape Town Treaty. While there are predictive returns, it also carries risks due to uncertainties in the global economy and fluctuating passenger numbers.
- Sales and Distribution: This segment is a crucial component of the aerospace value chain, as it necessitates a strategic business model to capture global opportunities effectively. It involves positioning parts and product lines across commercial and cargo segments to optimally serve markets worldwide.

South Africa has developed substantial capabilities and established local companies across most tiers of the aerospace value chain. The country can design and manufacturing both tier-one complete systems and lower-tier products, including parts and components. Maintenance, Repair, and Overhaul (MRO) activities are predominantly located at OR Tambo, Lanseria, and Wonderboom Airports. These facilities service the commercial, general, and recreational aviation sectors, respectively, forming distinct clusters for these services.

5. SWOT ANALYSIS FOR THE AEROSPACE SECTOR

A SWOT analysis is a strategic planning tool used to identify the Strengths, Weaknesses, Opportunities, and Threats affecting a business or sector. The following SWOT analysis provides a snapshot of the internal and external factors that may influence the aerospace and defence sector in Gauteng.

Strengths	Weaknesses
• Expertise: Gauteng benefits from a pool of skilled professionals and institutions with deep expertise in aerospace technologies, fostering innovation and enhancing competitiveness. • Strategic Location: The province's central location enhances its strategic importance in logistics, manufacturing, and defence operations, both nationally and internationally.	• Limited SANDF Procurement: The South African National Defence Force's (SANDF) limited procurement of new equipment makes local companies highly reliant on commercial aerospace and export markets. • Low Output from Higher Education: There is a concern about low output from higher education institutions in producing graduates who meet industry needs.

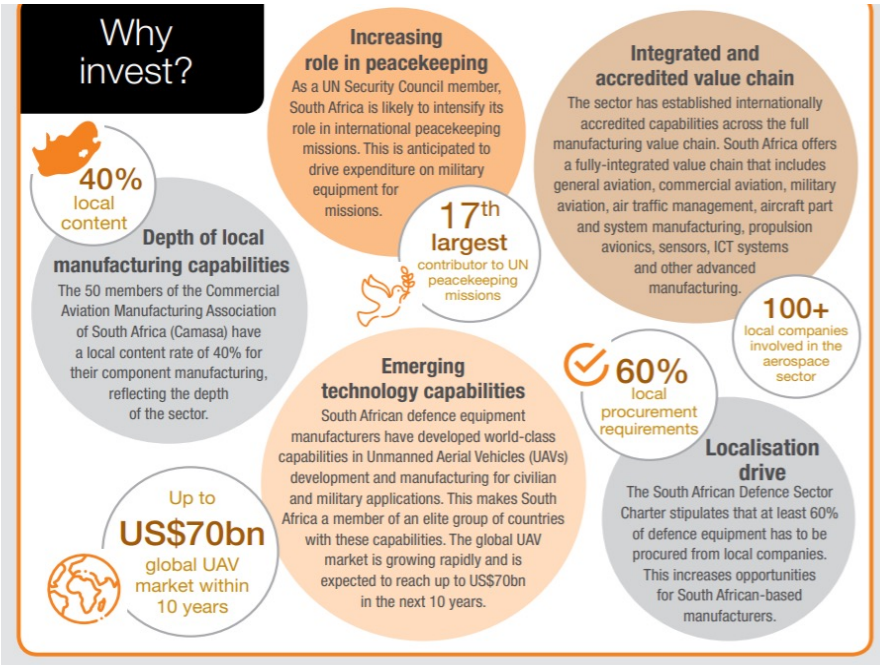
Strengths	Weaknesses
• Export Competitiveness: Domestic companies export a variety of aerospace and defence-related products, with South Africa positioned as a competitive supplier of affordable, mid-technology systems and products. • Government Support: There is strong government support for the aerospace and defence industry, including backing for joint ventures between local companies and international players. • Educated workforce: Gauteng's skilled and educated workforce, including engineers, researchers, and technicians, supports the complex needs of the aerospace and defence sector. • Established Infrastructure: The province has existing infrastructure, such as airports, research facilities, and industrial zones, which facilitates the growth and operation of aerospace and defence activities.	• Dependence on Imported Technologies: Thereliance on imported technologies and components can make the sector vulnerable to supply chain disruptions and geopolitical uncertainties. • Shortage of Specialised Engineers: Despite having a skilled workforce, there is a shortage of aerospace engineers with specialised knowledge in areas such as avionics, materials science, and propulsion systems. • Stringent Regulations: The aerospace and defence industry faces stringent regulations that can pose challenges and require continuous adaptation to meet international standards. • High Capital and Operating Costs: High capital investment and operating costs, along with a highly regulated industry, may deter new entrants and challenge existing players. • Vulnerability to Supply Chain Disruptions: The reliance on imported components makes the aerospace sector in Gauteng susceptible to global supply chain disruptions.
Opportunities	**Threats**
• Emerging Technologies: Investing in emerging technologies, such as Unmanned Aerial Vehicles (UAVs) and space exploration, can position Gauteng as a leader in cutting-edge aerospace advancements. • Government Support: Continued government support, funding, and favourable policies can create a conducive environment for industry growth and development.	• Economic Downturns: Economic downturns and global economic uncertainties can impact defence budgets and reduce demand for aerospace products and services • Political Tensions: Political tensions and conflicts in key regions may affect international collaborations and trade relationships within the aerospace and defence sector. • Rising Costs: Increasing costs of materials, energy, and labour can affect the profitability and competitiveness of aerospace and defence activities.

Opportunities	Threats
• International Collaboration: Partnering with international aerospace companies, such as Airbus and Boeing, can open doors to new opportunities and expand market access. • MRO Services: Expanding services in the maintenance, refurbishment, and overhaul of aerospace and defence products present significant growth potential. • African Market Expansion: The Single African Air Transport Market (SAATM) and the African Continental Free Trade Area (AfCFTA) agreements have the potential to increase connectivity and open new markets for local players across the African continent.	• Defence Budget Allocation: A failure to reduce staff levels could result in significant portions of defence expenditure being diverted to the SANDF's operational budget, limiting funds available for new procurement and development.

6. SIGNIFICANCE OF INVESTING IN THE AEROSPACE SECTOR

Investing in the aerospace sector is crucial to the South African economy due to the significant value it adds. This importance is highlighted in the Invest SA Fact Sheet 2020 report that provides reasons as to why potential partners should invest in South Africa.

Figure 8: 2020 Invest SA South Africa Fact Sheet



Source: Invest SA South Africa Fact Sheet 2020

7. BENCHMARKING BETWEEN BRAZIL, MEXICO AND CANADA

This section provides an overview of the Aerospace Sector in developing countries, specifically Brazil, Mexico, and Canada. The objective of this benchmarking analysis is to identify best practices within these countries and extract valuable lessons that can be leveraged to foster growth in the Aerospace Sector.

7.1 Brazil

Brazil has established itself as a leading aerospace power in Latin America by fostering agreements and collaborative conventions with major global aerospace agencies. The country has developed a robust national aviation sector that engages in joint ventures with strategic international partners. The aerospace sector in Brazil and Canada shares several similarities; for example, both countries have supported sector exports, built productive capabilities through R&D, human capital development, and technology, signed international agreements to promote human capital and Technology transfer, provided financial incentives to stimulate demand and implemented offset policies. In addition to these similarities, Brazil has taken specific measures to bolster its aerospace sector, including:

- Providing financial support to enhance demand.
- Offering tax exemptions on imported aircraft parts and sector profits.
- Supporting internationalisation efforts.
- Implementing protectionist import policies.
- Promoting cooperation among institutions, universities, and the private sector.
- Ensuring state involvement as a major client.

Their TT strategy remains a cornerstone for advancing new production capabilities within the sector. This strategy is executed through the transfer of technical drawings, the collaborative development of manuals, domestic production activities accompanied by training programs, individualised and group training sessions, and personnel exchange between Embraer and foreign companies.

7.2 Mexico

Mexico has published the National Strategic Aerospace Program to position itself as a leader in aerospace exports, employment, and productive integration. The programme includes several public-policy actions to boost the sector such as:

- International Accords: Establishing agreements to enhance global collaboration.
- Academic Coordination: Aligning national academic programs to train human capital.
- Attraction of Leading Companies: Encouraging top companies to establish a presence in Mexico.
- Public Research Centres: Creating centres for R&D that can connect with the private sector.
- Business Clusters: Forming clusters to strengthen industry collaboration.
- Certification Support: Assisting national businesses in obtaining necessary certifications.

7.3 Canada

Canada launched the Defence Sector Productivity Program (DSPP) to leverage industrial cooperation

agreements, initially targeting the defence sector and later expanding to dual-use projects (military–civilian). The key initiatives include:

- The Strategic Aerospace and Defence Initiative (SADI) provides refundable support for R&D projects that drive innovation in processes, products, or services. This initiative target space, aviation security, and defence sectors. Their objectives are to promote R&D capacity for innovation, increase the competitiveness of national businesses, and foster cooperation between institutions, universities, colleges, and the private sector.
- The Canadian government has prioritised the aerospace sector within its Science and Technology strategy to maximise public and private benefits from sector investments. In addition, it prioritising technology investments to boost national competitiveness and capabilities.
- Establish risk programs to enhance SMMEs' R&D efforts in the sector.
- Reinforce sector capabilities through intellectual property rights protection and Technological Transfer.
- Promote efficiency in export control and certification regimes.
- Provide training for workers and students.
- Establish clear national priorities for the space sector and stabilise the Canadian Space Agency.

Both Brazil and Canada share several characteristics in their aerospace strategies: They support exports from the sector; build productive capacities (R&D, human capital, and technology); sign international agreements to promote human capital creation and TT, while providing financial support to smulate demand, and establish an offsets policy to enhance sector growth.

8. PRIORITIES FOR THE AEROSPACE SECTOR

The Department of Defence, the Department of Science and Technology and the Department of Trade, Industry and Competition have developed comprehensive support policies for the aerospace sector. These include the National Defence Policy and Review which establishes guidelines and strategic priorities for national defence. The Assegai focuses on specific initiatives that advance aerospace capabilities. The Aerospace sector development plan illustrates the strategic roadmap for the sector's growth. The Master plan IPAP is supported by various other public service legislation relating to the procurement of aerospace technology, funding, exports and licensing, and intellectual property rights.

Based on South Africa's National Aviation, Defence and Sector-related policies the national commitments and priorities for the aerospace sector can be summarised in the categories highlighted below.

- To develop an aerospace sector capable of competing domestically and internationally. Aerospace manufacturing involves greater emphasis on innovation, physical infrastructure and a skilled manufacturing workforce that can meet local and international demands. The local sector players face high levels of competition from large players
- To transform the aerospace sector through broadening economic participation. Aerospace programmes require substantial capital investment and the demand for funding consistently exhausts the allocated resources, impacting the continued success of the sector. Support programmes that facilitate access to funding opportunities are critical due to a lack of market proof for their innovative products. This includes support for SMMEs, BBBEE, women, and people with disabilities.
- To contribute to the social and economic development of South Africa and the African region. The aerospace sector holds significant potential. The sector's growth can drive substantial

social and economic benefits, as historically, economic growth correlates strongly with expansions in manufacturing, both in terms of value-added and employment.

- To promote the safety and reliability of aerospace systems that are environmentally and economically sustainable. The aerospace systems capabilities are critical to South Africa's national safety and security requirements and are instrumental in maintaining security. Aerospace manufacturers are under pressure to deliver products timeously whilst maintaining the quality and keeping costs under control.

9. RECOMMENDATIONS FOR SECTOR-SPECIFIC INTERVENTIONS

As a response to the identified constraints and opportunities that lie within the sector, the following interventions can assist the sector in Gauteng to attain a positive outlook.

9.1 Aerospace Manufacturing Technical Skills Development

For nearly a decade, South Africa has been grappling with a significant shortage of skills within high technology industries. The objective of aerospace manufacturing technical skills development is to cultivate a workforce that is well-prepared, highly skilled, and capable of driving the advancement and competitiveness of the aerospace industry. This initiative ensures that individuals working in aerospace manufacturing possess the expertise required to meet the industry's stringent standards and contribute to the development of safe, efficient, and innovative aerospace products.
This specialised training is crucial for addressing the unique challenges and demands associated with the design, production, and maintenance of aerospace components and systems. The envisioned training programme will encompass both theoretical and practical components. Participants will not only gain a solid theoretical understanding of the intricacies of the aerospace sector but will also undergo hands-on, practical training. This dual approach ensures a well-rounded skill set, allowing learners to apply their knowledge in real-world scenarios and enhancing their overall competence in the field.

9.2 Drone Manufacturing Incubation Programme

SMMEs in the aerospace sector require more than financial support, given the stringent certification and quality requirements. An incubation programme would provide a holistic solution, offering more than just financial assistance. The Drone Manufacturing Incubation Programme aims to support and nurture the growth of black-owned SMMEs within the drone manufacturing sector in Gauteng. Its goal is to create competitive SMMEs capable of generating revenue and creating employment. The programme offers a comprehensive business incubation framework to both existing and new black-owned SMMEs in Gauteng. Additionally, it is designed to provide a supportive ecosystem that enables SMMEs in the drone space to build viable and scalable innovation-driven companies.

9.3 Aerospace Supplier Development Programme

In response to strategies aimed at increasing economic transformation within the province, the envisioned aerospace supplier development programme is designed to promote diversity and inclusion within the aerospace supplier base. This initiative provides opportunities for businesses owned by minorities, women, and other historically disadvantaged groups. The programme's objective is to expand the industrial base by encouraging Original Equipment Manufacturers (OEMs), integrators, and sub-systems suppliers to collaborate with SMMEs and lower-tier suppliers. It focuses on the continuous improvement of suppliers, particularly SMMEs, which are essential to supporting global supply chains. Additionally, the programme facilitates economic transformation by enhancing market

access opportunities for SMMEs; thereby increasing their participation and growth within the sector.

9.4 The Drone Pilot Skills Development Programme

The Drone Pilot Skills Development Programme is designed to equip participants with the essential knowledge and expertise required for effective and safe drone operation. The comprehensive curriculum covers drone regulations, flight planning, navigation, aerial photography/videography, and emergency procedures. The programme includes hands-on training sessions, simulator exercises, and real-world scenarios to ensure practical skill development. Participants will also undergo assessments to evaluate their proficiency and readiness for drone operation. Over six months, the programme will train the youth, with a focus on previously disadvantaged youth and those from the City of Tshwane Townships. By the end of the programme, graduates will be competent drone pilots capable of contributing to various industries such as agriculture, construction, filmmaking, and disaster response.
The key activities for the project are:

- Provide training in drone technology that will lead to a qualification called a remote pilot licence.
- Job Placements
- Facilitate business development of beneficiaries to become SMMEs.

9.5 Aeronautical Engineering Bursary Programme

The Aeronautical Engineering Bursary Programme is designed to support students pursuing a degree in aeronautical engineering. The bursary aims to alleviate the financial burden of higher education, making it more accessible for deserving and talented individuals. Each year, bursaries are awarded to youth from disadvantaged backgrounds, residing in Gauteng province. The envisioned bursary programme will cover the following expenses: tuition fees, prescribed books, accommodation, meals, and a living allowance. The bursary is granted for 1 academic year at a time and is renewable annually, contingent upon satisfactory academic performance. Additionally, the bursary programme serves as a strategic mechanism to broaden participation in the aerospace sector, fostering greater inclusivity and development within the industry.

9.6 Drones Manufacturing Workshop

The Gauteng province has consistently been a leader in innovation and technological advancement. As the economic hub of South Africa, with Johannesburg being the largest economic city on the continent, the Gauteng Provincial Government must foster growth and development within this critical economic sector. This sector offers significant opportunities for innovation, economic development, job creation, and the social upliftment of our communities. To position Gauteng at the forefront of drone technology development and application, a comprehensive understanding of the existing capabilities within the province, and the necessary steps for development and localisation is essential.
The workshop aims to achieve the following objectives:

- Assess the needs of industry stakeholders within the drone value chain to guide program development.
- Identify the challenges faced by industry players in the drone space.
- Explore the existing drone manufacturing capabilities within Gauteng province.
- Formulate informed recommendations to advance the sector's manufacturing capabilities, localisation, and market access.

10. CONCLUSION

In conclusion, the Gauteng Aerospace Sector Plan stands as a comprehensive roadmap designed to advance the region's aerospace industry into a new era of growth and innovation. With a strategic emphasis on fostering collaboration, investing in cutting-edge technologies, and nurturing talent, this plan lays the foundation for a dynamic and globally competitive aerospace sector in Gauteng. By aligning stakeholders, leveraging resources, and capitalising on emerging opportunities, the province is positioned to become a hub for aerospace excellence, driving economic development, transformation, and job creation. The successful execution of this plan will not only elevate Gauteng's aerospace industry but also make significant contributions to the broader national and global aerospace landscape.

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GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

2024

Automotive

SECTOR PLANS



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1. INTRODUCTION

The Growing Gauteng Together Programme (GGT2030) is an action plan that outlines the strategic direction and priorities for the province of Gauteng in pursuit of the 2030 targets. It is informed by the South African Economic Reconstruction and Recovery Plan (SAERRP), the Freedom Charter (FC), and the progress made thus far under Gauteng's Transformation, Modernisation, and Reindustrialisation (TMR) initiative. In pursuit of township economic development objectives, the Gauteng Provincial Government (GPG) passed the Township Economic Development Act (TEDA) on March 24, 2022, and received the province's assent on April 29, 2022.

The TEDA facilitates the implementation of transformative interventions that specifically benefit township enterprises throughout the province. The Act provides the GPG with a multidimensional mechanism to transform the regulation and governance of townships to change them into hubs of commercial activity that generate employment. The Act is designed to establish more effective procurement regulations that enable both the government and contractors to purchase from a wide range of firms located in townships. Additionally, it seeks to implement a specialised financing mechanism that offers wholesale and blended finance to intermediaries, thereby reducing the risk associated with lending to township-based firms.

The TEDA also serves as a call for the business sector to collaborate with Government to make strategic contributions to the transformation of value chains and the empowerment of Small Medium Micro Enterprises (SMME) through active enterprise development and supplier development. The National Development Plan (NDP 2030) has set a goal for SMMEs to account for 60%-80% of the gross domestic product (GDP) and create 90% of the 11 million new jobs in our country by 2030. The Gauteng Department of Economic Development (GDED) has embraced this vision and coordinated its efforts accordingly. To effectively accomplish this goal, it is crucial to prioritise the assistance provided to SMMEs in overcoming obstacles that hinder their ability to increase their market influence within industrial value chains. By doing so, these enterprises may become significant contributors to job creation and retention.

The GDED has contributed to accelerated economic growth within the automotive industry through strategic partnerships with government, non-governmental agencies, and industry leaders. There is a mobility shift in the automotive sector whereby the Internal Combustion Engines are looking to exit the market due to the new energy vehicles revolution. This revolution requires a regulatory environment, appropriate infrastructure, technological advances, technical skills, and accreditation. For the automotive industry to remain competitive through the NEV transition, the government needs to create an enabling environment for township automotive SMMEs.

The provincial government is in the process of planning, to prepare and ramp up for the just transition on decarbonised mobility from internal combustion engines towards battery energy vehicle and new energy vehicles.

It is vitally important to establish a robust SMME programme to position township SMMEs favourably, enabling them to leverage and participate in the new energy vehicles revolution. GDED aims to coordinate the informal automotive sector to ensure that Township SMMEs can continue providing services within the automotive industry. This can be achieved through the enhancement of mechanical skills, technical skills, repairs skills development, accreditation, and infrastructural support. The capacity needed to increase our competitiveness in the global transition from internal combustion

engines to electro-mobility solutions and technologies requires the inclusion of informal automotive service providers.

South Africa has set targets to reduce greenhouse gas emissions. The transport industry is South Africa's third largest source of emissions, accounting for 11% of the total and is therefore important for emissions reduction. The Department of Transport published the country's Green Transport Strategy (2018 – 2050), with the ambition to reduce transport greenhouse gas emissions to 5% by 2050. (NDP, 2023). The automotive sector is an essential catalyst for change that directly contributes to the nation's productivity. The automotive sector is an essential catalyst for change that directly, including its complete value chain, is a significant industrial and economic force that contributes daily value creation through the provision of mobility, facilitation of trade, generation of sustainable employment opportunities, transportation of people, products, and services, and support for communities and prosperity among the South African people.

South Africa has an opportunity to align decarbonisation plans with economic recovery endeavours to attract the foreign investment and financing necessary to finance and manage a Just Transition, given that it is a developing nation affected by extreme poverty, inequality, and unemployment, all of which have been exacerbated by the COVID-19 pandemic. It is crucial for South Africa to implement a just transition strategy that encompasses the following: the establishment of employment opportunities, a reduction of poverty, the rebuilding of natural systems to foster resilience, and above all, the guarantee that no one is left behind during the shift to a low carbon economy.

2. GLOBAL CONTEXT AND BENCHMARKING

The phenomenon of climate change is causing substantial economic changes as communities and industries adjust to its consequences and make efforts to reduce its repercussions. Globally, the transportation industry is responsible for almost one-third of greenhouse gas emissions. As a result, the sector is one of the top priorities for emissions reduction.
Countries are formulating strategies to decrease emissions across different transportation modes. Addressing road transport, these policy statements encompass the establishment of objectives to prohibit the sale of new Internal Combustion Engine (ICE) vehicles, as well as the implementation of carbon levies imposed on new vehicles and fuel consumption; incentives for transitioning automotive and component production; plans for rolling out charging infrastructure and upgrading electricity grids; and consumer subsidies for purchases of Electric Vehicles (EVs).

This has supported the global growth in the production and consumption of EVs. Globally, EVs as a share of total vehicle sales have more than tripled from 4% in 2020 to 14% in 2022. Going forward, new sales of ICE vehicles are projected to decline to approximately 25% of total sales by 2035, with the remaining 75% being EV sales However, while global sales of EVs may increase to such levels, there may be differences in the distribution of ICE and EVs at a regional level, with many parts of the developing world, including the African continent likely to transition at a slower pace. Whilst it is also the case that more recently, there has also been a slowdown or pushback in developed market economies regarding EV consumption/regulation, the general trendline of greater EV adoption is clear and South Africa will need to respond to it.

The automotive industry is experiencing significant changes worldwide due to climate mitigation and adaptation laws, as well as the resulting technology disruptions. The shift in demand and supply patterns is transitioning from a predominance of internal combustion engine (ICE) vehicles to a combination that includes battery electric vehicles (BEVs), plug-in hybrid electric vehicles (PHEVs),

hybrid electric vehicles (HEVs), and fuel-cell electric vehicles (FCEVs), all of which fall under the broader category of Electric Vehicles (EVs). The supply chains for car production are significantly impacted by these developments, which involve the incorporation of new components like batteries and a decrease in the demand for components related to internal combustion engines, such as petrol engines and catalytic converters.

The South African automotive assembly and component manufacturing industry is both threatened and presented with opportunities by these shifts. If the automotive sector fails to transition, there may be a loss of important export markets for both fully assembled vehicles and automotive components. Regarding automobile assembly, 46% of the vehicles manufactured in the country are sent to the United Kingdom (UK) and European Union (EU), which have pledged to prohibit the sale of new fossil-fuelled internal combustion engine (ICE) vehicles by 2035. Approximately 67% of the country's exports in component manufacturing are under threat since there is expected to be a decrease in demand for components specifically designed for Internal Combustion Engines (ICE).
Simultaneously, technical advancements, such as batteries, offer the potential to enhance backward integration within the industry. This can lead to the preservation or enhancement of value addition and employment along the value chain. The international competitiveness of many components relies, to some extent, on the demand from domestic vehicle assembly to achieve economies of scale.

Hence, the government must manage the transition in a way that facilitates the ongoing manufacturing and exportation of automobiles and components, to sustain and potentially expand the industry's workforce of over 110,000 employees (accounting for 8% of manufacturing employment). Failure to address this issue poses a threat to the automobile industry, which is a crucial element of the country's manufacturing capability, contributing to almost 10% of overall manufacturing production and up to 2.9% of South Africa's GDP. Considering the significant role of the automobile manufacturing value chain in the economy of many provinces, such as Eastern Cape, Gauteng, and KwaZulu-Natal, a downturn in the automotive industry might have severe consequences.

To achieve a successful transition, it is necessary to have clear policy guidance that enables the coordination of different aspects of the transition. This includes making investments in automotive assembly, component production, and charging infrastructure, aligning with energy and logistics advancements, developing necessary skills, and implementing policy measures that impact the development of the supply chain.

3. IMPORTANCE OF THE AUTOMOTIVE INDUSTRY TO THE DOMESTIC ECONOMY

The South African automotive manufacturing industry contributed 2.9% of South Africa's GDP in 2022, and 10% of manufacturing output making it the fourth-largest manufacturing sub-sector in the country in terms of sales revenue. This revenue includes the production and sale of vehicles and automotive components. In 2022 it employed 116,683 people directly and supported an additional 239,000 indirect jobs. If induced jobs are also considered, then the industry contributes to the maintenance of an additional 214,305 jobs. The automotive industry's direct jobs account for 8% of manufacturing employment or 0,8% of total SA employment. The sector pays approximately R36 billion in formal wages, providing an important source of income for workers and their families (NAACAM,2023).

3.1 South African Automotive Footprint in Africa

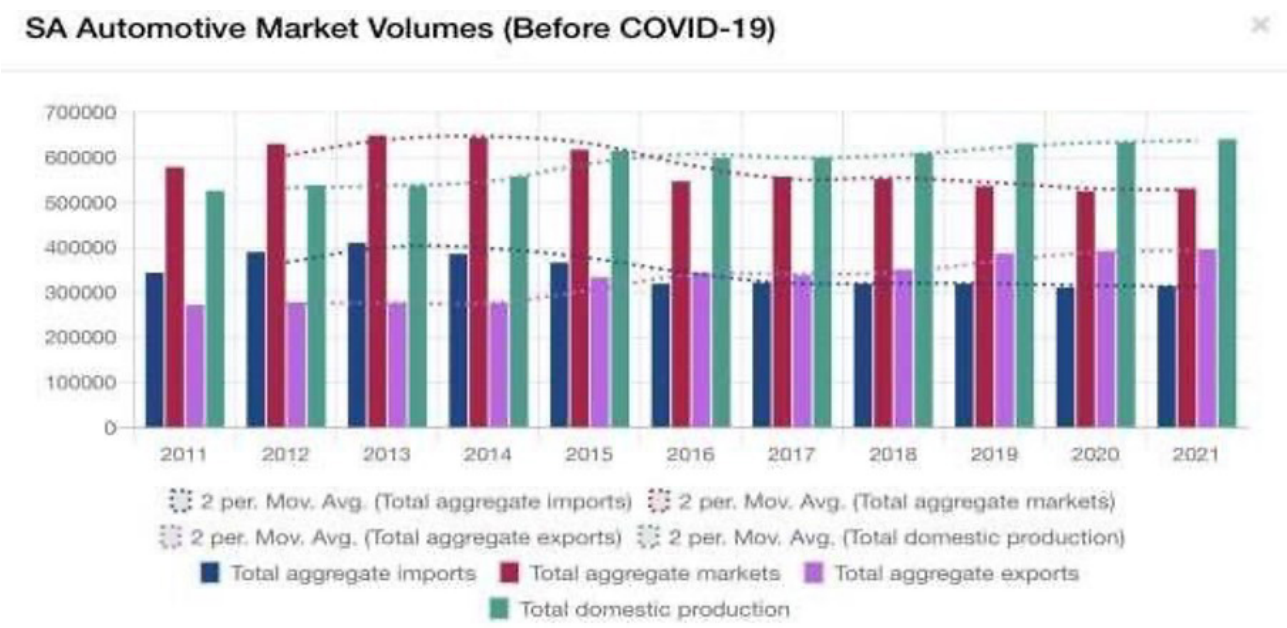
In 2022, the component manufacturing sector dominated the labour market in the automotive industry, representing more than 70% of total employment. At this stage of the value chain, there is an opportunity to enhance local value creation and get greater advantages in South Africa. Ensuring the continued manufacture and export of components is crucial for minimising job losses during the transition and promoting employment growth as the industry expands (NAACAM,2023).

3.2 SA automotive market volumes before and during the COVID-19

On average, before the COVID-19 market disruptions, 2020 was projected to yield a total domestic production and export of 634,400 and 391,900 units respectively, with a total aggregate market of 525,500 vehicles. Similarly, the projection for 2021 was set at 641,000, 396,000, and 531,000 units for total domestic production, total exports, and the total aggregate market. In the absence of COVID-19-fuelled lockdowns and halts in production activities, total domestic production, total exports, and aggregate markets would have shown percentage point increases of 1.05, 1.05, and 1.04, respectively.

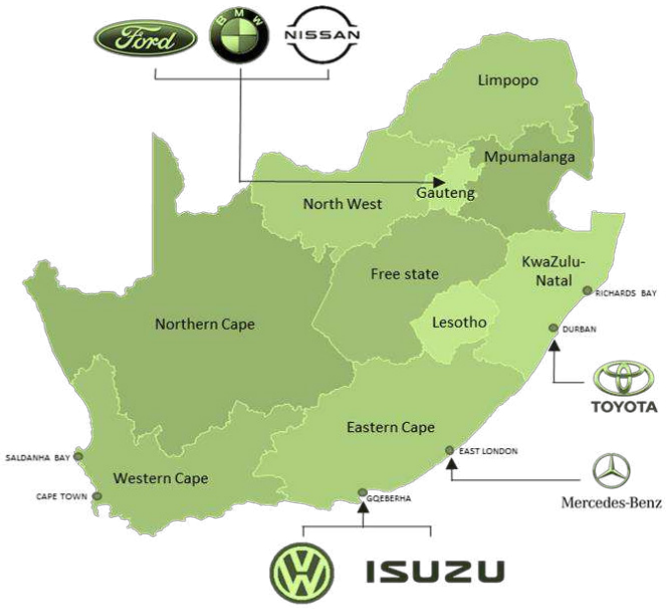
The graph indicates that over time, total aggregate imports in the automotive sector have declined. For the period between 2011 and 2019, imports decreased by 7.08%. Prior to the COVID-19 pandemic, the projected decline in imports for the period 2011 to 2020 was 9.49%, which is 2.41% lower than in 2019. These predicted declines in imports are particularly important for the localisation targets set out in the South African Automotive

Figure 1: SA Automotive Market value (before COVID-19)



Source: NAAMSA (2023)

Figure 2: SA Automotive Market Value (During COVID-19)



Source: NAAMSA (2023)

Figure 2 illustrates the performance of the South African automotive sector in terms of vehicle aggregate imports, exports, production, and total market, correlated with the duration of the COVID-19 pandemic. The industry experienced a loss of three working days in March and an additional full month in April, which adversely affected production, domestic new vehicle sales, and exports.

3.3 Geographic distribution of automotive assembly in SA

The industry has recorded a positive trade balance annually for at least the last 20 years, thereby making a positive contribution to the country's balance of payments. In 2022, the exports of vehicles and automotive components accounted for 12.4% of total South African exports. The industry exported R157.0 billion worth of vehicles and R70.3 billion worth of components to 152 countries. The EU and UK together accounted for 72.7% of total exports in 2022.

3.4 Automotive Industry Export Performance

The automotive industry has attracted substantial foreign investment. Between 2021 and 2022 it accounted for a total of R26.1 billion in green and brownfield investment. This investment not only supports the industry but also bolsters South Africa's standing as an attractive destination for foreign investors.

Whilst the automotive industry has a positive impact on the South African economy, the cost of the fiscus is offset by the revenues earned through taxes collected. During the five-year period from the 2017/18 tax year to the 2021/22 tax year, corporate income and personal income taxes collected from the automotive industry covered the cost of industrial support provided through the APDP, providing a net-neutral position for the fiscus while creating substantial economic gain.

Table 1*: Industry export performance by major region 2018-2022, units*

	2018	2019	2020	2021	2022	%
Europe	233,772	285,599	197,355	229,672	255,709	72,7%
Asia Africa North America Australasia Central Amer-ica South America Total	50,277	39,879	29,440	24,170	35,154	10%
	23,988	23,382	16,987	21,825	22,564	6,4%
	13,037	13,540	9,463	7,981	21,684	6,2%
	22,767	17,350	13,698	10,621	12,389	3,5%
	1,511	5,651	3,156	3,045	2,759	0,8%
	5,787	1,691	1,188	706	1,527	0,4%
	351,139	387,092	271,287	298,020	351,786	100%

Source: NAAMSA (2023) – Automotive Export Manual

Whilst the automotive industry has a positive impact on the South African economy, the cost of the fiscus is offset by the revenues earned through taxes collected. During the five-year period from the 2017/18 tax year to the 2021/22 tax year, corporate income and personal income taxes collected from the automotive industry covered the cost of industrial support provided through the APDP, providing a net-neutral position for the fiscus while creating substantial economic gain.

Table 2: Automotive industry indicators and perfomance

Indicator	Performance	
	2021	2022
Broader automotive industry contribution to GDP	4,3%	4,9%
Vehicle and component production as % of South Africa's manufacturing output	17,3%	21,7%
Average monthly employment by vehicle manufacturers	30 697	33 321
Automotive component sector employment	78 874	83 362
Capital expenditure – vehicle manufacturers	R8,8 billion	R7,1 billion
Capital expenditure – component sector	R5,7 billion	R4,5 billion
Total South African new vehicle sales	464 493 units	529 562 units
Total South African vehicle production	499 087 units	555 889 units
South Africa's vehicle production as % of Africa's vehicle production	55,0%	54,4%
South Africa's global vehicle production ranking	21st	22nd
South Africa's global vehicle production market share	0,62%	0,65%
Vehicle ownership ratio per 1 000 persons	178	182
Vehicle parc (number of registered vehicles)	12,96 million	13,30 million
Total automotive export earnings	R207,5 billion	R227,3 billion
Automotive export value as % of total South African export value	12,5%	12,4%
Number of export destinations	152	152
Number of export destinations with export values more than doubling year-on-year	32	29
Top automotive export destination in Rand value terms	Germany	Germany
Total South African vehicle exports	298 020 units	351 785 units
Value of vehicle exports	R138,3 billion	R157,0 billion
Top vehicle export destination in volume terms	UK	UK
Value of automotive component exports	R69,2 billion	R70,3 billion
Top automotive component export category in Rand value terms	Catalytic converters	Catalytic converters
Top automotive trading partner (imports and exports) in Rand value terms	Germany	Germany
Top automotive trading region (imports and exports) in Rand value terms	EU	EU
Top country of origin for total automotive imports in Rand value terms	Germany	Germany
Top country of origin for vehicle imports	India	India

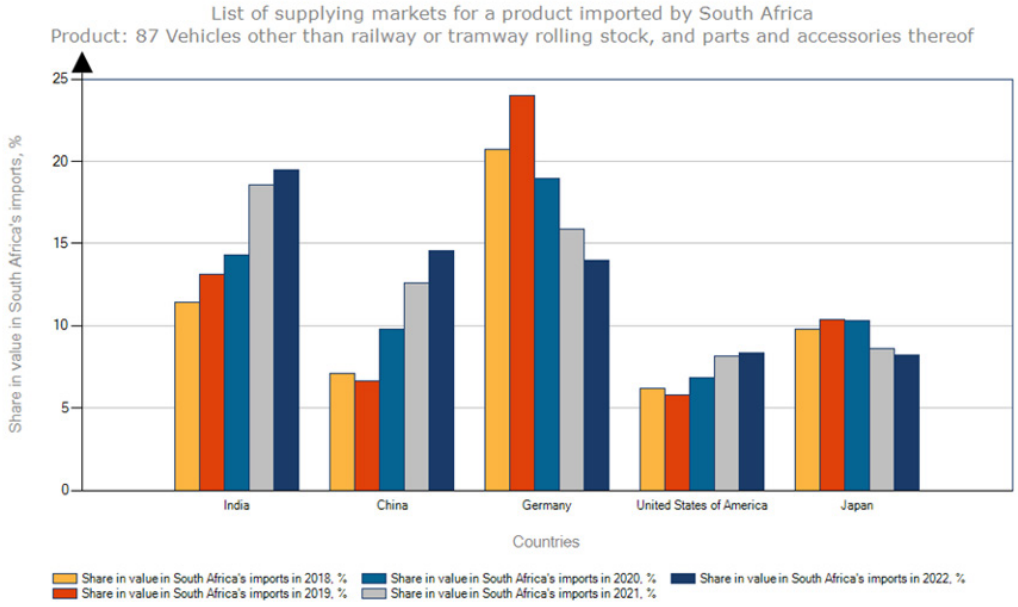
Source: AIEC, Econometrix, **naamsa**/Lightstone Auto, NAACAM, OICA, SARS, StatsSA

3.5 Key performance indicators under APDP1 and APDP 2, 2021-2022

The South African automotive industry also has a stimulatory effect on other ancillary industries in South Africa, including steel, platinum group metals, plastics, textile/leather, and logistics services. The automotive industry is a large consumer of stainless steel, accounting for more than a quarter of local consumption, used in the production of locally fabricated exhaust systems and catalytic converters. The inter-sectoral impacts of its operations are created through the industry's domestic purchases of goods and services from the various sectors directly and indirectly affected by its production activities and requirements for intermediate goods and services.
For example, the automotive industry's purchases of fabricated metal products have direct implications on the fabricated metal products sub-sector in terms of GDP and the number of jobs employed in that sub-sector, among other impacts. The wide range of other intermediate input materials, electricity, water, and transport and business services required for its production processes are also among the automotive industry's sectoral impacts.

3.6 Imported vehicle products other than railways or tramway rolling stock, and parts and accessories

Figure 3: List of supplying markers for a product imported by South Africa product

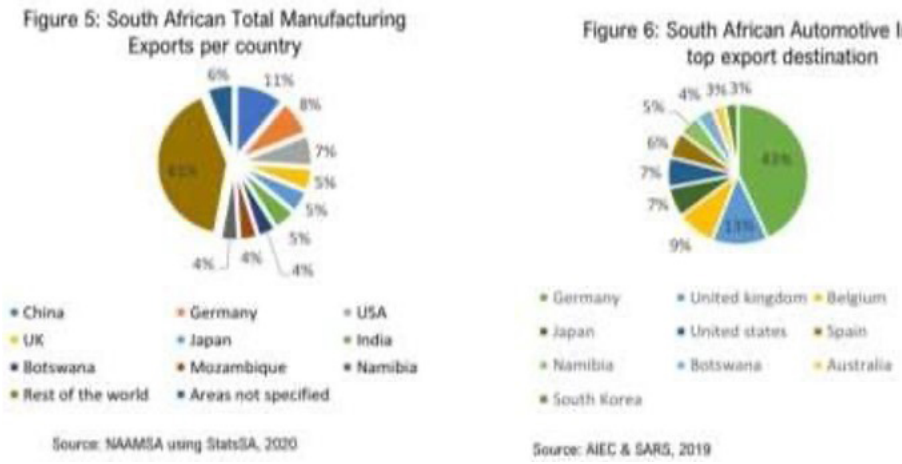


Source: Trade markets (2023)

3.7 Impact of Covid-19 on the South African Automotive Sector

The uncertainty surrounding the duration and severity of the COVID-19 pandemic makes it hard to anticipate how a recovery could unfold for the industry. The COVID-19 pandemic and its attendant effect on markets and commercial activity will likely present a range of challenges to the automotive industry - challenges that could deepen depending on the severity and length of the crisis in South Africa and globally.

Figure 4: South African Automotive Industry Exports



China, Europe & US have been severely affected by COVID-19 pandemic

The South African automotive industry exported to 151 countries in 2019 to diversify risk, however, most of these countries have now been affected by COVID-19: Europe, Asia (China), and the United States of America. Consequently, the domestic market's ability to export will depend on the lockdown regulations and periods in trading countries. Naturally, this implies the SA automotive sector's supply chains and assembly lines have been negatively impacted. Additionally, even though sourcing principles still apply, the speed at which trading partners can recover and open trade is a critical factor for the All-South African export-oriented sectors. The risk exposure to suppliers from affected COVID-19 countries could present a case for potential localisation opportunities in South Africa

4. IMPACT OF TECHNOLOGICAL SHIFTS AND TRANSITION POLICIES ON COMPETITIVENESS OF PRODUCTION

Technological shifts and transition policies have direct implications for the relative competitiveness of production locations. Firstly, the battery supply chain significantly affects the cost competitiveness of locations. Batteries are expensive compared to standard ICE components and are bulky, which increases logistics costs. Additionally, there are few firms with the technological expertise to produce them, and they are only competitively produced in only a few locations in the worldwide, primarily in Asia. Secondly, the global EV incentives and policies acknowledge the changes in the attractiveness of production locations and seek to shift this to benefit the country in question. On the demand side, countries aim to support the uptake of EVs and help the industry achieve economies of scale. On the supply side, they seek to attract EV investments and new technologies while reducing production costs.

The combination of these factors has different implications for BEVs, PHEVs and HEVs. The cost competitiveness challenges are most acute in the case of BEVs, as they use bigger batteries and as a result, they are more expensive. BEVs and FCEVs are also the only EVs that would meet the zero-emission regulations that are being instituted in most high-consumption markets. For example, the EU and UK commitments to 100% new sales of zero-emission vehicles by 2035 mean that PHEVs and HEVs will be banned together with ICE vehicles.

5. THE EVOLUTION OF AUTOMOTIVE POLICY AND INDUSTRY PERFORMANCE

The automotive industry in South Africa is widely recognised as a successful example of industrial policy during the country's democratic era. The country effectively transformed an industry with limited

capacity and low global competitiveness into a globally competitive one. It now hosts manufacturing facilities for 7 major Original Equipment Manufacturers (OEMs), with 2 more expected to establish facilities. The country's annual output ranks among the top 25 producing countries worldwide. The automotive industry has experienced favourable outcomes due to the implementation of industrial policies, resulting in superior performance compared to other non-commodity manufacturing sectors. In the pre-democratic era, the automotive sector in South Africa was governed by a policy of import substitution, which involved the implementation of significantly high tariffs. The business primarily catered to the South African market, with each producer producing small quantities of a wide variety of models at significantly greater expenses compared to analogous production in other nations. The establishment of the World Trade Organisation (WTO) in 1994 and the subsequent agreement to promote free trade by lowering tariff barriers posed a significant danger to the South African automobile industry, necessitating a shift in industrial policy. The Motor Industry Development Programme (MIDP), implemented from 1995 to 2012, resulted in increased investments and enhanced integration into global value chains, leading to rising levels of both exports and imports. The reduction in vehicle platforms and the increase in average vehicle assembly volume per platform have contributed to the economies of scale for the local component manufacturing industry.

Objective evaluations of the MIDP concluded that, overall, the program achieved success due to the economic benefits surpassing the financial expenses, the industry surpassing other manufacturing sectors, and enhancements in its global competitiveness.

In 2013, the Automotive Production Development Programme (APDP) replaced the MIDP with the aim of redirecting support from exports to production and enhancing the localisation of the value chain. The APDP employed a comparable system of incentives, transitioning from an emphasis on exports to the attainment of higher levels of local value addition. Objective evaluations of APDP 1 (2013-2021) revealed genuine expansion during the 2011-2021 period, despite an overall downturn in several segments of the manufacturing industry. The industry has demonstrated its capabilities through its significant contribution to exports, manufacturing jobs, managerial expertise, worker skill enhancement, and technology spillover effects. Nevertheless, there were also concerns regarding the constrained expansion of the component business. The development of the APDP phase 2 (APDP2) and the South African Automotive Masterplan (SAAM, 2021-2035) was driven by these concerns.

The APDP 2, which was introduced in July 2021, establishes the incentive structure for the industry from 2021 to 2035. The SAAM 2035 vision is to establish a globally competitive and transformed industry that plays an active role in the sustainable development of South Africa's productive economy, resulting in wealth for industry stakeholders and society at large. The vision of the SAAM can be divided into four constituent pieces. One of the key objectives is to enhance the industry's global competitive standing. The second aspect pertains to the industry's role in driving the change of the South African economy, namely by promoting the ownership of Black-owned firms. The third factor pertains to the sustainable development of the South African economy, encompassing industrial expansion, employment rates, skill enhancement, and the production of ecologically friendly goods and procedures. The fourth aspect is the establishment of shared prosperity through the industry. This encompasses the financial well-being of companies involved in the value chain, the equitable compensation of employees, and the comprehensive contribution of the value chain to the South African treasury. The SAAM's long-term strategic objectives are as follows:

- Increase South African vehicle production to 1% of global output.
- Raise the local content in South African assembled vehicles to 60%.

- Double the total employment in the automotive value chain.
- Enhance the competitiveness of the automotive industry to match that of leading international competitors.
- Transform the South African automotive industry by promoting the employment of black South Africans, providing training opportunities for black employees, empowering dealerships and authorised repair facilities.
- Significantly increasing the contribution of black-owned automotive component manufacturers within the automotive supply chain.
- Strengthen value addition within the South African automotive value chain.

6. SOUTH AFRICAN AUTOMOTIVE MASTERPLAN (SAAM) 2021 – 2035

Aligned with its long-term policy certainty strategy, the government, approved the South African Automotive Masterplan (SAAM) 2021-2035 on 23 November 2018, which was implemented on 1 July 2021. SAAM 2035 calls for a major reappraisal of the automotive industry, both in terms of its scale and the way it operates. Targets include a doubling of jobs in vehicle and component manufacturing by 2035, based on the 2019 level, from 120,000 to 240,000: and a more-than doubling of vehicle production from 2019 levels, from 600,000 units to 1,4 million units per annum by 2035. In addition, the average value of local content in South African manufactured vehicles is targeted to rise from 40% to 60%. Together, it is hoped these initiatives will create the scale to enable mass entry into the predominantly white industry by black industrialists and entrepreneurs. The seven OEMs have established a R6 billion Automotive Industry Transformation Fund (AITF) to nurture black newcomers, mainly in components manufacture, logistics, services and motor dealerships. All these targets, however, were set before the inception of COVID-19.

The APDP Phase 2 will operate within the framework of the SAAM and provides the incentive framework for the industry for the period from 2021 to 2035. The APDP2 is a Trade-Related and Investment Measure (TRIM). The TRIM allows safe and secure foreign direct investment (FDI) and allows duty rebates for the localisation of activities. The framework places local value addition at the centre of any future support for the industry. The APDP2 shifts support away from production sales value towards local value-addition, specifically through the introduction of a Volume Assembly Localisation Allowance (VALA), replacing Volume Assembly Allowance (VAA).

The new-look APDP also increases the production incentive benefit from 20-25% on components. Component manufacturing in South Africa has been less embedded than is the case in automotive industries in other jurisdictions. For this reason, the government decided to adjust its incentives to ensure the development of automotive component suppliers, as well as to support those suppliers exporting into automotive supply chains elsewhere in the world. APDP2 also now supports the export of SKD kits to regional markets, provided that the kit comprises a complete vehicle. The Production Rebate Credit Certificate (PRCC) was replaced by duty credits that are tied to local value-addition at duty value. The Automotive Investment Scheme (AIS) cash grant for capital investments has been retained and the base has been set at 20% (previously 20% plus 10%) with investments in green mobility solutions at 30%. There will be no changes to the tariff regime in respect of vehicles.

A significant change is that LVA for government incentive support must be generated from BBBEE-compliant companies, from OEM assembly operations back to the auto supply chain. This is a phased-in requirement that comes into full fruition in January 2024. The SAAM 2035 vision is the achievement of “a globally competitive and transformed industry that actively contributes to the

sustainable development of South Africa's productive economy, creating prosperity for industry stakeholders and broader society".

The vision of the SAAM can be described in four components. The first component is the improvement of the industry's global competitive position. The second component is related to the industry's contribution to the transformation of the South African economy, and which includes employment equity through the greater inclusion of Black-owned firms. The transformation levels that have been set must be adhered to to participate in the benefits of both the APDP2 and AIS-2. The third component is related to the sustainable development of the South African economy, and includes aspects such as industry growth, employment levels, skills development, and environmentally friendly products and processes.

The fourth component is related to the shared prosperity created by the industry and includes the financial health and wellbeing of firms within the value chain, the fair remuneration of employees, and the holistic contribution of the value chain to the South African fiscus.
A key summary of the SAAM 2021-2035 objectives is as follows:

- Grow South African vehicle production to 1% of global production by 2035.
- Increase local content in South African manufactured vehicles to 60%.
- Double automotive employment in the supply chain; Improve industry competitiveness levels to that of leading international competitors.
- Transformation of the South African automotive value chain
- Deepen value-addition within South African automotive value chains.

The automotive sector recognises that the SAAM vision can only be realised if the six development objectives are met. Achieving the SAAM objectives will require careful coordination and a close working relationship between government, the private sector and organised labour. Six industry development pillars have been identified as critical to the realisation of the SAAM. The six pillars relate to:

- local market optimisation.
- Regional market development.
- Localisation.
- infrastructure development.
- Industry transformation.
- and the development of industry-required technologies and skills.

7. SWOT ANALYSIS

Strengths	Weaknesses
• Evolving Industry: The automotive sector is continuously evolving, offering improved lifestyles, work opportunities, and travel options. Its contribution to growth and development remains substantial, with increasing demand anticipated in the future. • Constant Innovation: Automotive companies are investing in research and development, focusing on electric vehicles and renewable energy sources like solar and wind, driving the industry's next phase of growth. • Global Manufacturing: Companies are strategically establishing manufacturing facilities in Asian nations, such as India and China, to control costs, leverage abundant resources, and access emerging markets efficiently.	• Consumer Bargaining Power: The automotive market has shifted from demand-driven to supply-driven over the past few decades, giving consumers extensive choices and bargaining power. • Regulatory Challenges: Government regulations, including excise duty, regional entry restrictions, and fuel price volatility, pose significant challenges to the industry's growth. • High Employee Turnover: The automotive sector faces higher employee turnover rates compared to other industries, making talent attraction and retention challenging amidst intense competition.
Opportunities	**Threats**
• Fuel Efficiency: Optimising fuel-driven combustion engines and cost-efficient programs present opportunities for growth, especially in emerging markets where fuel-efficient vehicles are in high demand. • Changing Lifestyles: Shifts in consumer demand, regulatory safety and fuel economy requirements, and the availability of data will drive industry growth. • Market Expansion: Exploring new markets in Asia, BRICS nations, and emerging markets promises increased demand for vehicles, with further expansion opportunities on the horizon.	• Intense Competition: The presence of numerous industry players leads to fierce competition, limiting opportunities for new entrants. • Economic Uncertainty: Macroeconomic factors like uncertainty, recession, and unemployment pose prolonged challenges to the automotive industry. • Fuel Price Volatility: Fluctuations in fuel prices remain a key factor for consumer segment growth, compounded by government regulations on alternative fuels like CNG and Shell gas.

8. RECOMMENDATIONS FOR THE SECTOR PLAN

The automotive sector stands as a cornerstone of South Africa's manufacturing landscape, significantly impacting the economy through vehicle assembly and component manufacturing. Despite its prominence, the industry faces challenges, including a decline in local content and increased imports of automotive components. Addressing these issues is crucial for enhancing the sector's contribution to economic growth and job creation. The Automotive Master Plan outlines objectives to bolster the involvement of Black-owned manufacturers and supports the development of Small And Medium Enterprises (SMMEs) within the sector. This section explores strategic initiatives aimed at improving skills development and market access for automotive SMMEs, with a focus on component manufacturing and township mechanics. By implementing targeted programmes and partnerships, such as those with Sanlam and Santam, and preparing for the transition to New Energy Vehicles (NEVs), the Gauteng Department of Economic Development (GDED) seeks to foster a more inclusive, sustainable, and competitive automotive industry. Additionally, a feasibility study will assess the potential for establishing a battery manufacturing plant in Gauteng, aligning with national goals for local content and industry growth.

8.1 Automotive Skills Development Programme (Component Manufacturing)

According to the Automotive Master Plan, the automotive industry is South Africa's most important manufacturing sector. Approximately one-third of value addition within the domestic manufacturing sector is derived either directly or indirectly from vehicle assembly and automotive component manufacturing activity, positioning the industry and its broader value chain, as a key player within South Africa's industrialisation drive. Despite the key role the industry plays in terms of its contribution to manufacturing, the master plan states that there has been a decline in local content in vehicles and the import of automotive components has increased. This is a worrying trend considering the potential that lies within the industry in terms of development.

One of the objectives of the Automotive Master Plan is to increase the contribution of Black-owned automotive component manufacturers within the automotive supply chain. The GDED should support this goal, by supporting the transformation of the industry through the development of black component manufacturers. As such, the department should partner with an industry player to develop a programme that identifies key components that are required by supply chains and develop the skills and capabilities of SMMEs to meet the demands of the industry. This would ensure inclusive development within the industry and place black component manufacturers in a position that compete in supply chains and create jobs in Gauteng.

8.2 Automotive Skills Development Programme (Township Hub)

It has been noted that most of our Black businesses operate in the third economy and that does not even get accounted into the GDP. The informal auto mechanics sector constitutes a vital part of Gauteng's economy, serving as a cornerstone of local transportation services. However, mechanics in this sector often encounter barriers that hinder their growth and success. To grow the level of employment in the sector, there is a need for support and investment for existing automotive SMMEs. Currently, existing SMMEs lack key elements required for accreditation and there are relevant automotive bodies that can enable them to service a wider market.

The process of upskilling and capacitating SMMEs accordingly would lead to more market opportunities and place them in a position to create jobs within the sector, particularly in the townships and then they can be able to develop the township economy, which is one of the NDPs requirements

of creating inclusive economic participation for all South Africans. These barriers include limited access to markets, formal education, funding to expand business operations, workshops, tools, and supply of parts and components. Additionally, issues related to skill development, entrepreneurship, accreditation, and access to finance pose significant challenges. To address these concerns effectively, it is imperative that GDED engage directly with the mechanics, understand their realities, and work collectively to develop solutions.

The objective is to implement interventions that will elevate these businesses from the third economy to at least the second economy of the automotive aftermarket while creating an enabling environment for those SMMEs operating successfully in the informal sector. Central to these developments is the capacitation and formalisation of the informal auto mechanics in the townships. Establish a programme where backyard technicians and mechanics can become more familiarised and upskilled to equip these SMMEs with business development skills, formalising their status, and facilitate market access. This will ensure that they play a significant role in the automotive industry.

To achieve this goal, the GDED needs to collaborate with industry stakeholders to build township SMMEs that can meet existing service demands in the automotive sector, as well as upskill SMMEs through formalisation, skill development, and supporting the accreditation of informal SMMEs. This will enable them to get accreditations, and the necessary skills and identify set essentials to participate in the values chain.

8.3 Sanlam and Santam Insurance market access opportunities for automotive SMMEs

Sanlam and Santam are looking for SMMEs to be a part of their SMME development program. This will allow the SMMEs to enter the market through a variety of opportunities that Santam and Sanlam will provide, ensuring that these SMMEs play a significant role in their value chain. To ensure that these SMMEs have access to markets, GDED will play a role in linking them with the Sanlam and Santam automotive insurance opportunities**.**

8.4 NEV Roadmap

The transport industry is South Africa's third largest source of emissions, accounting for 11% of the total and therefore important for emissions reduction. The Department of Transport published the country's Green Transport Strategy (2018 – 2050), which set out the ambition to reduce transport greenhouse gas emissions to 5% by 2050. (NDP,2023). There is a mobility shift in the automotive sector whereby Internal Combustion Engines are looking to exit the market due to the New Energy Vehicles revolution. This revolution requires a regulatory environment, appropriate infrastructure, technological advances, technical skills, and accreditation.

The provincial government is in the process of planning, to prepare and ramp up for the just transition on decarbonised mobility from Internal Combustion Engines towards Battery Energy Vehicle and New Energy Vehicles. GED is currently formulating a NEV road map strategy to assist the automotive sector in Gauteng in its transformation from an internal combustion engine (ICE) to New Energy Vehicle (NEV), thereby ensuring a smooth and successful transition. The road map will Guide Strategy development of a NEV roadmap for Gauteng province, medium and long-term projects in support of Gauteng's economy's transition from ICE to NEVs.

8.5 Feasibility study on establishing a battery manufacturing plant in Gauteng.

According to the South African Automotive Masterplan 2015, a battery is one of the biggest contributors to value addition for electric vehicles and participation in the value chain will be important for achieving the master plan's local content target of 60%. The increasing demand for batteries stems from the global push to decarbonise the automotive industry.

The country is well positioned to capitalise on opportunities presented by the battery value chain, given its considerable production and reserves of battery materials. It is essential to develop capabilities for EV batteries given the opportunity that lies for localisation. As such, Gauteng should position itself as a key region on the continent for battery manufacturing. To understand the possibility of this objective, GDED needs to conduct a feasibility study on establishing a battery manufacturing plant in Gauteng to identify opportunities for localisation, SMME development and key stakeholders the province should collaborate with to achieve this objective.

9. CONCLUSIONS

The future of the automotive industry in South Africa lies in large-scale vehicle production and component exports. Exporting remains key to generating sufficient economies of scale and achieving improved international competitiveness. South Africa does not want to lose its major export markets and faces significant job losses at the plant level, export revenue, as well as a substantial drop in the automotive industry's contribution to the GDP.

The development of this sector will be crucial in enabling individuals in the province to establish and expand SMMEs to establish a reasonable standard of living. Consequently, the Gauteng Provincial Government should form strategic partnerships and collaborate with key actors in the automotive industry to transform the sector, sustain exports, and subsequently increase employment in the sector.

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GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

2024

Chemicals

SECTOR PLANS



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1. INTRODUCTION

The world is undergoing multiple changes. It is fast-evolving, modernising, and becoming more youthful and dynamic. It is undergoing multiple transitions because of dominant megatrends, such as demographic shifts, climate change, increasing levels of urbanisation and rapid technological change. Recently, the global pandemic, namely COVID-19, has disrupted the global economy resulting in a loss of industrial capabilities and jobs.
As a result, governments must therefore adopt adaptable and resilient long-term plans and transformative policies that will meet the needs of the growing populations. In response to this call, and guided by the National Development Plan, Gauteng has developed a programme that seeks to address these challenges and place the province on a developmental path that builds a just and sustainable economy.

The Growing Gauteng Together Programme (GGT2030) is a plan of action, which sets out the vision for the Gauteng of 2030, guided by the principles and priorities contained in the Freedom Charter, the National Development Plan (NDP), and work carried out to date as part of Gauteng's Transformation, Modernisation, and Reindustrialisation (TMR) programme. Through GGT2030, the province seeks to contribute to and take the lead on the President's initiatives of economic recovery, investment, industrialisation, youth employment, and the township economy – while also focusing on sectors with high employment potential.

Manufacturing is a key sector that will play a role in addressing the challenges faced by the province and the country. The manufacturing sector has the highest economic and employment multipliers compared to other sectors of the economy. Backward linkages inherent within the manufacturing sector can pull through inputs from the primary sector, as well as other manufacturing and services sectors to transform them into higher value-added products, to stimulate job creation and economic linkages across the value chain. Furthermore, through forward linkages to downstream sectors, the manufacturing sector provides an added impetus for employment and growth.

To meet this end, using collaborative partnerships with key stakeholders, the provincial government has identified sectors to spearhead the goals identified within the GGT2030; which aims to build a more just and sustainable economy.

Amongst others, the chemicals sector is an industry that requires support and attention to develop capabilities, productivity, export competitiveness, job creation, and innovation along the value chain, particularly the downstream part of the value chain. The Department of Trade, Industry and Competition (DTIC) identifies the economic significance of the chemicals sector (encompassing pharmaceuticals and plastics) at a national level because of its linkages to other industrial sectors such as agriculture, healthcare, the automotive industry, and clothing and textiles. However, the sector has performed poorly with a rapidly widening trade deficit and declining value addition.
As a sector, chemicals are diversified with production ranging from intermediate inputs for a variety of industry and finished consumer products. The sector has strong backward and forward linkages to other industries, certain segments such as plastics and consumer chemicals are medium technology and are labour absorbing.

To respond effectively to trends of an ever-changing global environment and the impact of the pandemic as well as provide skills and jobs in high potential sectors as highlighted by the GGT2030; the development of this sector will play a key role in turning around the fortunes of the province that aims to build a more just and sustainable economy. As such, this paper details a sector plan for the

chemicals industry, particularly the downstream part of the value chain known as other chemicals, that can play a key role in the growth, transformation and industrialisation of the province.

2. CHEMICALS SECTOR IN SOUTH AFRICA

2.1 Definition of the chemicals sector

The standard industrial classification divides the chemicals sector into 8 different sub-sectors which in turn are made up of several industries (Table1).

Table 1: Chemicals sector at 3 and 4 level SIC codes.

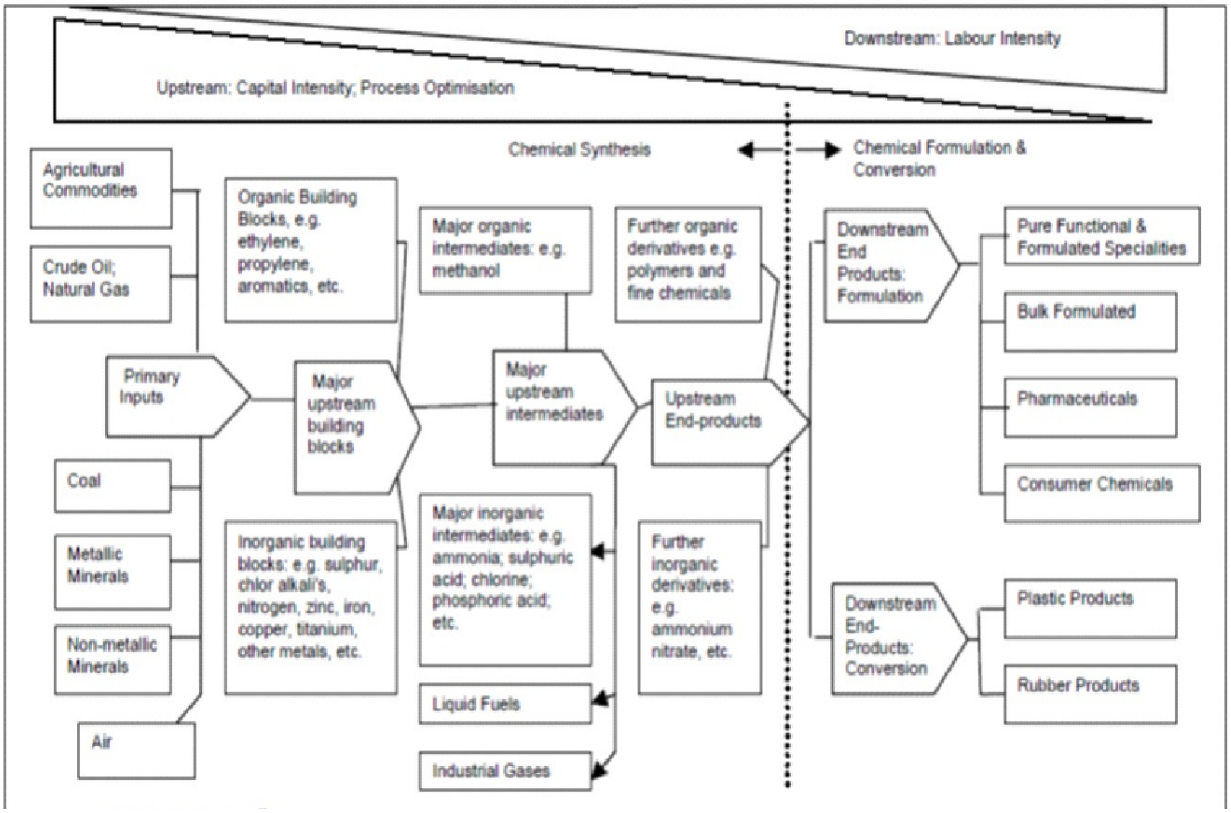
SIC Level 3	SIC Level 4		
331	Manufacture of coke oven products	3310	Manufacture of coke oven products
332	Petroleum	3321-3329	Petrol, fuel oils, lubricating oils, and greases, primarily from crude oil;
			Petrol, fuel oils, lubricating oils, and greases, primarily from natural gas;
			Petrol, fuel oils, lubricating oils, and greases, primarily from other organic products;
			Compounded and blended lubricating oils greases, etc.
			Other petroleum/ synthesised products N.E.C.
333	Processing of nuclear fuel	3330	Processing of nuclear fuel
334	Manufacture of basic chemicals	3341-3343	Manufacturing of basic chemicals, except fertilisers and nitrogen compounds;
335	Manufacture of other chemical products	3351-3359	Manufacturing of pesticides and other agro-chemical products;
			Paints, varnishes and similar coatings, printing ink;
			Pharmaceuticals, medical chemicals, and botanical products; detergents, cleaning, and polishing prod, perfumes, toilet preparations; and
			Other chemical products N.E.C.
336	Manufacture of man-made fibres	3360	Manufacture of man-made fibres
337	Manufacture of rubber products	3371-3379	Manufacturing of rubber tyres and tubes, re-treating, and rebuilding rubber tyres; and
			Other rubber products
338	Manufacture of plastic products	3380	Manufacture of plastic products

Basic chemicals tend to be more capital-intensive and have a smaller share of employment, while plastic products, rubber products and other chemicals are more labour-intensive. Both basic chemicals and other chemicals employ a sizeable proportion of highly skilled and skilled labour and have seen

the mix move gradually towards higher skills, although not to a particularly significant extent. Plastics and rubber are predominantly low-skilled.

The chemical industry can be classified into two broad categories, i.e. upstream and downstream. The further upstream markets tend to be more technology-intensive in the manufacture of basic chemicals as raw materials/feedstock, while downstream converts these raw materials into intermediate and final products. The capital-intensive operations of the upstream chemical sector tend to be automated to ensure that products meet the required quality and specification consistency. The downstream chemical sector has operations that are typically labour-absorptive and consist of formulation production processes. It has greater potential to contribute significantly to large numbers of employment and the development of SMMEs.

Figure 1: Chemical Sector Value Chain



Source: CHIETA, 2014

While upstream activities are concentrated and well-developed, the downstream sector - although diverse - remains underdeveloped (DTI, 2015). The development of the downstream chemicals industries would also be in line with Gauteng's vision of creating vast employment opportunities. In terms of increasing participation within the economy, there is also potential for delivering both static and dynamic gains from the competition, where increased rivalry (from new entrants) not only brings down prices from the competition, but firms also develop capabilities to compete on quality, product range etc. (Banda et al,2014).

3. PERFORMANCE OF THE CHEMICALS INDUSTRY

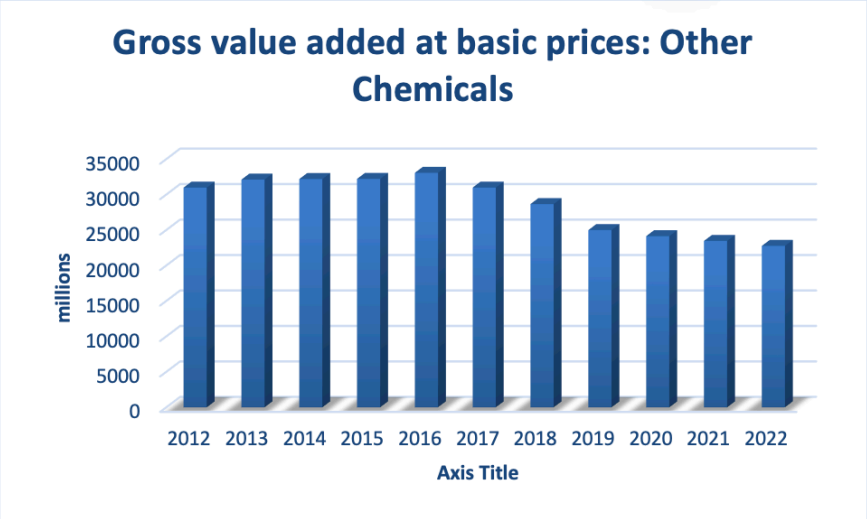
The chemical industry globally is an integral component of industrialised economies. The industry occupies a unique position within manufacturing and the wider economy, with a value chain that

stretches from upstream primary industries to downstream consumer products. South Africa has, over the years, built up the largest chemical industry in Africa. This industrial asset needs to be supported and sustained if the country is to prevent further de-industrialisation.
This section provides an overview of the performance of the South African chemicals industry with emphasis on its downstream manufacturing sector with regards to the other chemical industry and a specific focus on the Gauteng province. The areas reviewed include gross value added, employment and trade statistics for South Africa and Gauteng.

3.1 South Africa's chemical industry

The graph below highlights South Africa's other chemicals sector's contribution towards gross value added. In 2012, the sector contributed R30.976 million to gross value added and increased to R33.062 million in 2016. However, from 2017, the sector experienced a decline in its contribution to gross value added and contributed R22.765 million in 2022. This suggests that the country's other chemicals sector is losing key capabilities which thus affects its potential to create jobs within a country that is experiencing a challenge of unemployment.

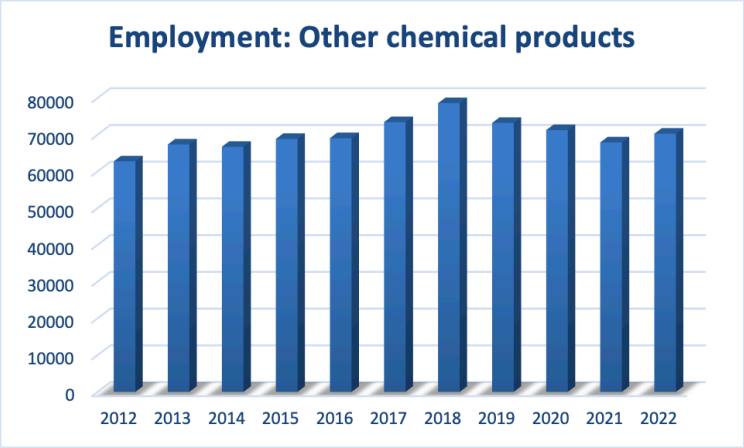
Figure 2: Other Chemicals' Gross Value Added



Source: Quantec, 2024

The figure below depicts the sector's contribution towards employment. In 2012, the other chemicals sector contributed 62,749 to employment and increased to 73,428 in 2017. However, the industry's contribution towards employment decreased to 70,280 in 2022. This suggests that the industry lost market share throughout the years resulting in the loss of jobs in the country.

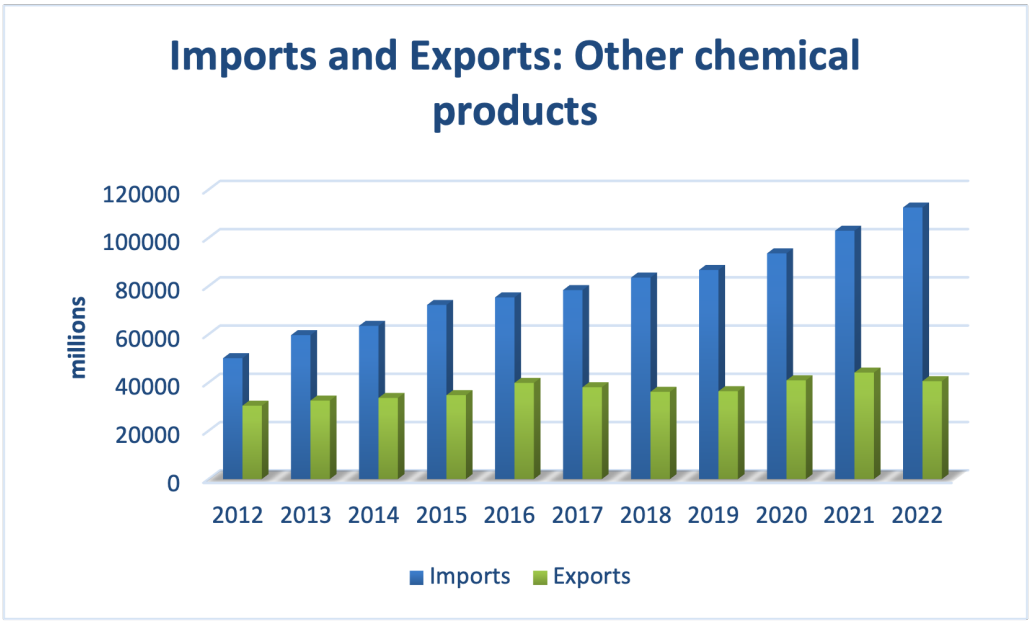
Figure 3: Employment in Other Chemical Products



Source: Quantec, 2024

With regards to manufacturing, South Africa has experienced a challenge of import penetration throughout the years, and this has led to the loss of key capabilities. Import penetration has also been a challenge within the other chemicals sector. Between 2012 and 2022, there has been an increase in the imports in the country from contributing R50.124 million in 2012 to R112.597 in 2022. With regards to exports, in 2012, the sector contributed R30.427 million and R40.596 million in 2022. Although there has been an increase in exports, South Africa experienced a trade deficit during this period. As a result, there is a need to support the development of the industry by targeting the much-needed skills and areas of competitiveness to reverse the mediocre performance of the sector. Furthermore, advocating for protectionism for key products within the other chemicals industry will provide the space required for the industry to develop and acquire skills that would allow it to compete soon.

Figure 4: Imports and Exports in Other Chemical Products

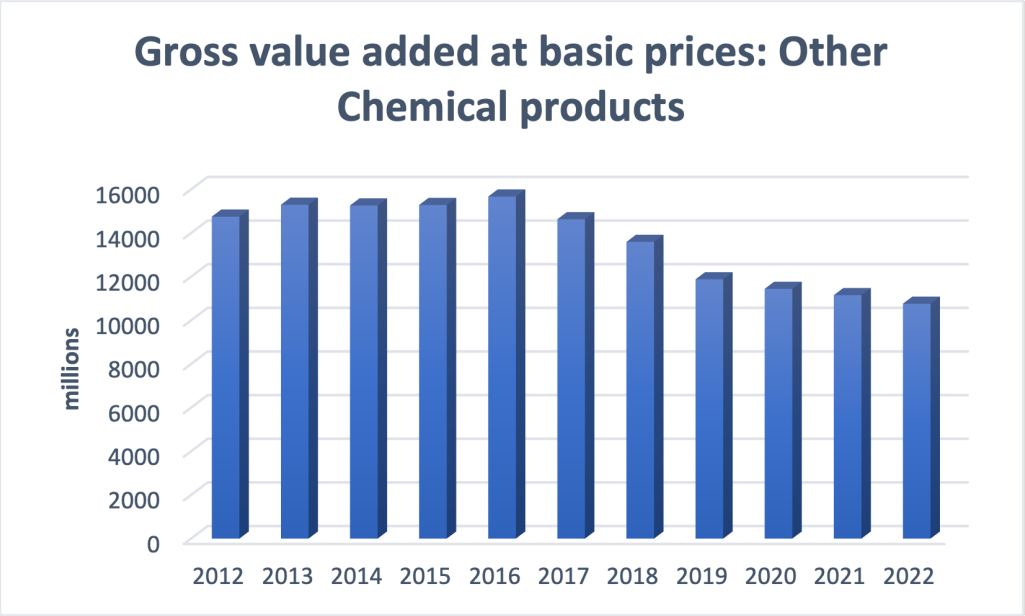


Source: Quantec, 2024

The figure below highlights the performance of Gauteng's other chemicals sector in terms of gross value added. In 2012, the sector contributed R14.751 million to gross value added and its contribution increased to R15.672 million in 2016. However, the sector's contribution experienced a decline over

the years and contributed R10.762 million in 2022. The decline with regards to other chemicals sector's contribution to gross value added over the years is a genuine issue that needs attention as it impacts the potential contribution towards employment.

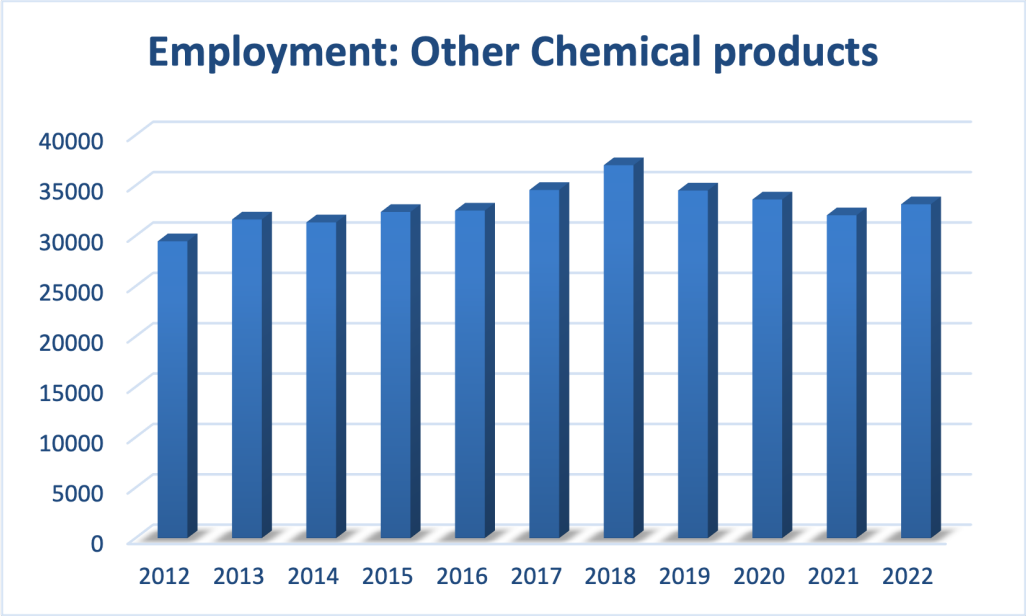
Figure 5: Gross Value Added at Basic Prices for Other Chemical Products



Source: Quantec, 2024

The figure below depicts other chemical sectors' contributions in terms of employment in Gauteng. In 2012, the sector contributed 29 470 towards employment whilst in 2017, the sector employed 34 566 people. In 2022, the sector employed 33,417 people.

Figure 6: Employment in Other Chemical Products

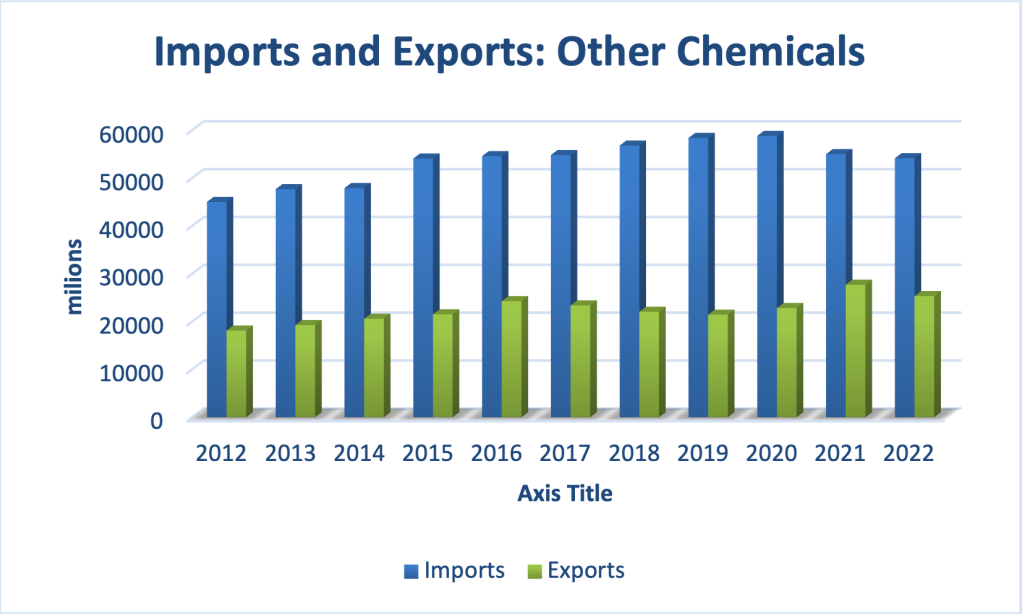


Source: Quantec, 2024

The figure below depicts international trade concerning imports and exports of other chemicals. Between 2012 and 2022, there has been an increase in imports. In 2012, the contribution of imports regarding other chemicals was R44.994 million and in 2022 imports accounted for

R54.129 million. Although there has been an increase in terms of export contribution between the period in which exports accounted for R18.125 million in 2012 and R25.320 million in 2022, the province has experienced a trade deficit during this period. With increased import penetration this suggests challenges of productivity and competitiveness within the sector and interventions that target these challenges are required to reverse import penetration and create jobs from the sector.

Figure 7: Imports and Exports in Other Chemicals



Source: Quantec, 2024

4. THE SWOT ANALYSIS

The strengths of the provincial industry lie in its proximity to the market and key feedstock producers, resulting in lower transport costs and shorter lead times compared to producers in other areas of the country. However, this advantage does not extend to high-import content production, where Gauteng producers are disadvantaged by their location. The industry exhibits significant diversity in downstream activities and has a well-established presence in sectors such as packaging and construction.

Nevertheless, the industry is hindered by import parity pricing of upstream inputs and due to low volumes, has limited bargaining power with its oligopolistic suppliers. The local industry has struggled to develop capabilities that could potentially increase value addition in downstream operations, posing a significant threat to its long-term sustainability. Key drivers of this trend include an ageing capital base and declining R&D capabilities and support. As a result, the industry is failing to upgrade technologically and is increasingly losing the requisite skills to do so.

Table 2: SWOT analysis

Strengths	Weaknesses
• Proximity to major markets • Industry concentration and opportunities for agglomeration effects • Proximity to the DTI, CSIR and DST as key policymakers and support institutions with the resources to drive industry advancement. • Local producers of feedstocks • Established a presence in plastic packaging for food and the retail sector.	• An oligopolistic upstream supply chain reduces the bargaining power of upstream producers. • R&D spending by firms is declining, resulting in reduced technological capabilities and abilities to innovate. • Ageing capital base and a lack of reinvestment. • Skills shortages and the costs of acquiring expensive technical skills, either through expatriation or paying a premium locally. • The export market is affected by the strength of the rand, although imports are a stronger driver of the industry, in terms of cost structures. • Gauteng's location- too far from ports, export transportation costs become high. • Demand for plastic for the building sector and the manufacture of automobiles is highly dependent on the strength of the economy. • The plastic conversion sector is dependent on polymer pricing.
Opportunities	**Threats**
• Vertical integration of the value chain, aimed at fostering collaboration. • Low barriers to entry render the industry conducive to SME development and start-ups. • Packaging innovations that substitute plastic for boxes, paper, etc. • The government's state housing and infrastructure spending, especially for plastic pipe manufacturers. • The countrywide water supply and distribution problems provide opportunities for plastic pipe manufacturers. • Recycling – given the consideration that waste picking has significantly increased in Gauteng.	• Regulatory stringency and associated cost burdens are exacerbated by the misalignment of spheres and departments within the government. • Cost of doing business (electricity, compliance). • Imports costs and the volatility of the Rand. • Access to world-class technology necessary for capacity expansion is increasingly unaffordable. • Lack of R&D facilities and relevant industry skills.

From a provincial government perspective, then, opportunities for designing a framework of support for the regional industry must necessarily focus on ensuring a competitive and consistent supply of public services, developing operational capabilities, facilitating investment in upgrading technologies and a more productive capital equipment base, and ensuring a requisite pool of skills is developed to support this growth trajectory. Underpinning all of this should be an established, industry-led R&D capability that supports the industry to upgrade and deepen value addition on a sustainable basis.

5. STRATEGIC POLICY DIRECTION FOR GAUTENG – RECOMMENDATION

The Gauteng Department of Economic Development has an objective of promoting inclusive economic growth, industrialisation, and sustainable job creation through the support of SMMEs. SMMEs have the potential to be key drivers of economic growth, job creation and innovation in the economy. To achieve this aim, strategies and programmes are essential to create an enabling environment for SMMEs to play this crucial role. A widening trade deficit in the downstream chemicals value chain has impacted the development of this sector; therefore, strategic initiatives, collaboration, and a focus on technology and innovation are required to regain market share. As such, these are the recommendations necessary for impactful intervention.

5.1 Chemicals Support Programme

The chemicals sector is diversified with production ranging from intermediate inputs for a variety of industry and finished consumer products. The Department of Trade, Industry and Competition (DTIC) identifies the economic significance of the chemicals sector at a national level because of its linkages to other industrial sectors such as agriculture, healthcare, the automotive industry, and clothing and textiles. The sector has strong backward and forward linkages to other industries, certain segments such as plastics and consumer chemicals are medium technology and are labour-absorbing.

Although the industry exhibits significant diversity in downstream industries for chemical-based products, the import penetration within the downstream part of the value chain - which includes products such as soaps, detergents, cosmetics, and essential oils – has steadily increased which suggests that the province is losing competitiveness. The key drivers of this trend include an ageing capital base, declining R&D capabilities, and developmental support. Furthermore, the industry is losing key skills and has not developed sufficient skills which affects its competitiveness and potential development.

As a result, the sector requires support to develop capabilities, productivity, export competitiveness, job creation and innovation along the value chain particularly, the downstream part of the value chain.

The Chemicals Support Programme becomes essential in this regard in that it aims to target areas that limit the competitiveness of the industry by developing the requisite skills of SMMEs to improve the industry's competitiveness and presence in the market. The programme, which is envisioned to be implemented through a partnership, seeks to develop new and existing SMMEs that produce cosmetics and detergents intending to achieve economic development, transformation, and job creation in the province.

To achieve this objective and be guided by the aspirations of GGT2030, the programme needs to be implemented through a phased approach that will be monitored thoroughly to achieve the GPG commitment to develop an inclusive provincial economy. The phased

approach of the programme must address issues of competitiveness faced by SMMEs, localise key products and target export markets.
The first phase of the programme, which will be implemented in the 2024/25 financial year, will focus on addressing issues of competitiveness faced by SMMEs and improving their presence in the market. In the second phase of the programme which will be implemented in the following financial year (2025/26), the programme will focus on identifying products that can be localised and address issues of import penetration that have an impact on reindustrialisation aspirations. In the last phase of the programme, which will be implemented in 2026/27, the programme aims to take advantage of opportunities in export markets, especially within the continent as such the development of SMMEs would be linked to penetrating export markets.

The implementation of the Chemicals Support Programme would play a key role in achieving GGT2030 objectives. The programme aims to develop SMMEs that produce chemical-based products such as detergents and cosmetics to address competitiveness and import penetration challenges whilst targeting key markets on the continent. This programme will thus play an essential role in achieving economic development, transformation, and job creation in the province.

5.2 Compliance with state procurement and retailers

Over the past few years, SMMEs have raised concerns about the difficulties in accessing government opportunities, despite having products to supply. While economies of scale (volumes of products) and price have been identified as barriers hindering SMMEs from accessing markets, a significant challenge that has emerged is the lack of understanding of procurement by SMMEs.

According to Chemin, a challenge that they have identified faced by SMMEs is that emerging enterprises have a lack of understanding with regards to required submissions for procurement processes; this suggests that the lack of understanding becomes a barrier to entry and has contributed towards SMMEs not being able to access markets. As a result, SID in partnership with Inclusive Economy and Gauteng Provincial Treasury, will host a workshop that aims to address this challenge. The workshop will focus on the following aspects:

- Develop the capabilities of SMMEs to understand procurement, local content, and the steps necessary for completing documents and complying with the tendering process.
- Connect SMMEs that manufacture similar products with the aim of clustering them to explore opportunities for meeting volume demands.

Even though the workshop will be key in providing SMMEs with information on procurement processes, the workshop will also conduct a needs assessment to understand barriers and requirements that departments and agencies should consider supporting the development of SMMEs.
Furthermore, the workshop aims to assist SMMEs in understanding the environment they operate in. As such, stakeholders from retail space and e-commerce will form part of this initiative, to provide SMMEs with an understanding of standards, requirements, and other important considerations so they are in a better position to access the retail space.

5.3 Advocacy: Policy development to ensure access to markets for SMMEs.

The DTIC has identified procurement as a key developmental instrument that can lead to inclusive

development and industrialisation. A key part of ensuring this objective is achieved is that procurement needs to be targeted at products that are manufactured domestically. However, over the years, there has been a challenge of mismatch in which there is minimal connection between state expenditure and products manufactured locally, which has resulted in the procurement of imported products. As such, to proactively support SMMEs that will result in economic development and job creation, there is a need to develop a policy within the department that will create space for SMMEs that manufacture chemical-based products to supply to GDED and its agencies.
To achieve this goal, SID will play an advocacy role to champion the creation of space for manufacturing capabilities that have been developed through our partnerships as well as SMMEs that can supply to the department and its agencies.

The development of a policy will not only guide supply chain processes but also ensure space is created for SMMEs to supply products at their existing capacities. This will trigger the much-needed demand that will allow them to create jobs and invest in their operations.
To achieve this, engagement with supply chain officials and coordinating key stakeholders such as BBBEE, Inclusive Economy and Economic Planning to co-develop a policy or conduct advocacy engagements to ensure the participation of SMMEs within the GDED procurement.

26.4Gauteng Chemical and Pharmaceutical Incubation Programme

As a result of the chemicals sector requiring support and attention because of experiencing poor economic performance that was more pronounced in downstream sub-sectors, the GDED had a collaborative partnership with the Chemistry Incubator (Chemin) and implemented an incubation programme to develop skills of SMMEs to create employment.

Between 2018/19 and 2022/23, the Gauteng Chemical and Pharmaceutical Incubation Programme supported 770 SMMEs, created 405 jobs, and enabled these SMMEs to generate over R73 million in turnover. While the department's mandate is to support economic development initiatives by implementing programmes, it is also tasked with supporting development through facilitation. Consequently, this sector plan will focus on supporting market-ready SMMEs, developed by the department in partnership with Chemin, through facilitation.

Apart from assisting SMMEs through compliance as was discussed above, there is a need to provide support to SMMEs to access export markets and funding from the department and its agencies as well as other key stakeholders. As such, the sector plan will conduct the following activities:

- Engage with relevant stakeholders who provide support to SMMEs in accessing export markets.
- Provide non-financial support to SMMEs by developing proposals aimed at securing funding and any other form of non-financial support to ensure the development of SMMEs

The partnership with Chemin has played a role in providing support to developing SMMEs in the downstream part of the value chain, which has further led to the creation of jobs which is in line with the vision of the GGT2030; and continued support for the programme will play a role contributing towards provincial objectives of economic development and transformation.

6. CONCLUSION

In recent years, South Africa has experienced poor economic growth, deindustrialisation and deepening levels of unemployment, poverty, and inequality. As such, manufacturing will be key in placing the country on a development path that is just and sustainable. As a result of its high growth multipliers, the chemical industry can play a key role in improving the economic growth of the province. The development of this sector will be essential in providing people in the province with an opportunity to create and develop SMMEs to create decent employment due to the sectors' labour-absorbing nature with regard to the downstream part of the value chain.

As such, the Gauteng Provincial Government can play a key role by tapping into the vast knowledge that lies within the province in its universities, research institutions, incubation programmes and industry players to create an environment that is driven by partnerships that seek to develop the industry and address the increasing levels of import penetration in the province and the country.

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GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

2024

Clothing, Textile, Leather and Footwear

SECTOR PLANS



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1. INTRODUCTION

The South African Clothing, Textile, Leather, and Footwear (CTLF) sector is a diverse and complex industry that encompasses a wide range of activities, from the cultivation of raw materials like cotton and wool to the design, manufacturing, and retailing of finished products. It is labour-intensive and predominately employs women. According to TIPS 2022, the entire Retail, Clothing, Leather, and Textile value chain contributed about 3% of the total GDP. In the second quarter of 2022, the clothing manufacturing sector contributed an estimated R6.6 billion to the economy. During this same period, the clothing sector employed 216,000 people, down from 246,000 in the first quarter of 2020, but showing an improvement from the COVID-19 employment levels of 179,000 in the second quarter of 2020. The industry is concentrated in KwaZulu-Natal and the Western Cape, and the majority of CTFL manufacturers are small and medium-sized enterprises (SMMEs). The industry can be broadly divided into four sub-sectors:

- Clothing: This is the largest sub-sector, accounting for about one-third of the industry's output.
- Textiles: The textile industry produces a variety of fabrics, including cotton, wool, and synthetic fibres. South Africa is the world's largest producer of mohair, a fine wool made from the hair of Angora goats.
- Leather: The leather industry produces hides, skins, and finished leather products such as shoes, bags, and upholstery. South Africa is a major exporter of raw leather.
- Footwear: The footwear industry produces a wide range of shoes, from sandals to boots. South Africa is a major importer of footwear, but there is a growing domestic industry.

In terms of localisation, the industry has a minimum threshold of 100% local content designated. However, it currently faces stiff competition from an influx of imports, particularly from Asian countries with cheaper labour and production costs. According to the Fibre Processing and Manufacturing SETA, the CTLF sector has been selected as a designated sector to leverage public procurement aimed at industrial development and mitigating unfair competition from illegal imports. The sector has the potential to be a major driver of economic growth through continued innovation, investment, job creation and boosting exports. This could be achieved through government and stakeholder support with the following incentive programs initiated:

Retail Clothing, textile, leather and footwear Value Chain Master Plan 2030 (R-CTFL)
Developed by DTIC 2019, to improve competitiveness, technology, skills, and transformation.

- The Clothing & Textiles Competitiveness Program (CTCP)
- It is managed by the Industrial Development Corporation (IDC), aimed at boosting investment and job creation. Includes Competitiveness Improvement and Production Incentive Program.
- Strong tariff protection
- Aims to protect domestic industry within the rules of the World Trade Organization and provide a buffer against dumping.
- Skills Development Support
- Provides funding for entrepreneurs in the industry through Fibre Processing and Manufacturing (FP&M) and the Sector Education & Training Authority (SETA) Programmes.
- The Value Chain Alignment (VCA) Programme aims to develop synergies between clothing and textile suppliers and retailers.

In Gauteng, there is a chance to develop an intervention that will positively impact the sector. During the CTLF sector sessions hosted by the Gauteng Department of Economic Development in 2018, it was discovered that the major sector need was designing with the latest technologies. Therefore, investing in smart fabrics, 3D printing and upskilling to adapt to new technologies presents an opportunity to improve the significance of the sector. The Growing Gauteng Together (GGT2030) plan of action seeks to achieve industrialisation, economic recovery, inclusive economic growth, and employment through the identified 10 high-growth sectors; although CTLF is not part of the identified sectors, it has high employment potential (one of the most labour-intensive industries) and requires support to exploit its potential.

The GGT 2030 also highlights the expansion of Gauteng's existing base, pursuing and directing more foreign and domestic direct investment into new labour-absorbing sectors such as the CLTF, supporting initiatives to promote entrepreneurship in the townships, bringing local suppliers into the value chains and investing in the infrastructure needed to support these dynamic goals. The GGT 2030 action areas are as follows:

- Driving inclusive economic growth to benefit SMMEs, cooperatives, township businesses, youth, women, and persons with disabilities.
- Improved access to funding, grants, and access to market (procurement).

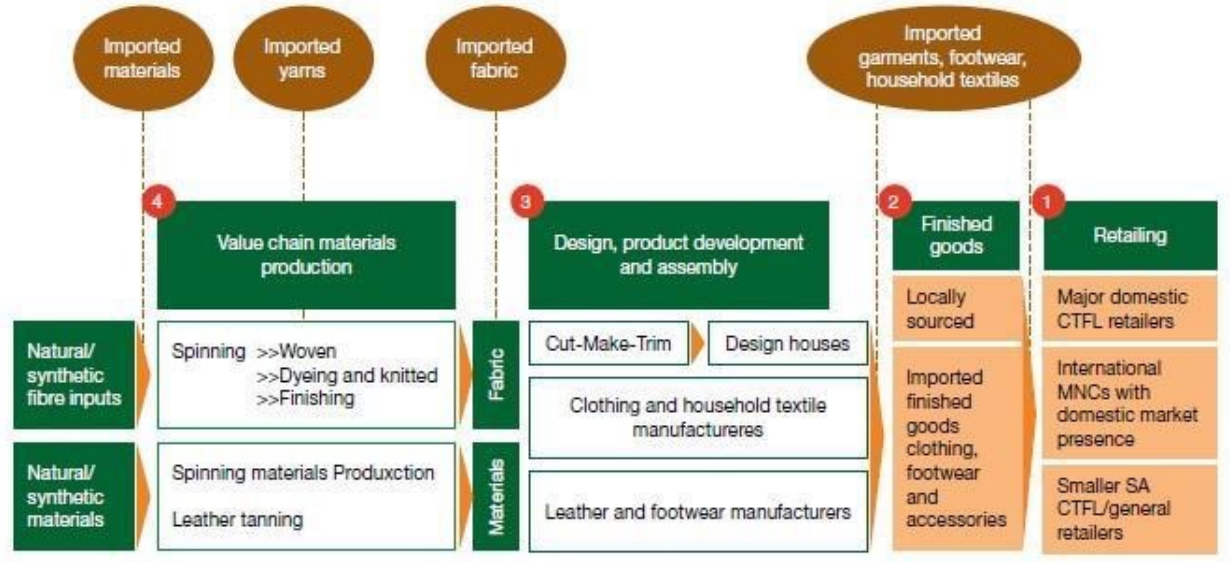
Through the various initiatives, the industry can regain domestic competitiveness, taking into consideration technological improvements, and the market may transition towards sourcing from local manufacturers and retail suppliers.

Considering the above, the sector plan seeks to highlight the significance of considering the entire value chain, the economic performance and conduct of the sector, the SWOT analysis, recommendations and benchmarking to understand how other regions have developed their sector and inform the recommended programmes.

2. SECTOR VALUE CHAIN

The South African CTFL value chain has experienced significant turbulence. Local production and supply chains have been replaced and displaced by cheap imports. The domestic sales of CTFL products in South Africa have been severely impacted by tightening market conditions, foreign competitors, illicit trade, and credit supply restrictions. The diagram below shows a high-level depiction of the value chain. The domestic value chain starts with the production of raw materials, such as cotton, wool, and hides. These include cotton farmers, wool producers, sheepskin shearers, and tanneries. They provide the basic materials needed to produce textiles, footwear, and leather goods. The second stage is the Design, Product development and assembly which is the manufacturing process of textiles, clothing, and footwear. The Finished goods then go to Retail as the final sale of these products to consumers.

Figure: 1 Clothing, Textile, Leather and Footwear Domestic Value Chain



3. CONDUCT OF THE SECTOR AND ECONOMIC PERFORMANCE

3.1 Global Overview

The global CTLF Industry's main players are China, India, Germany, Italy, Vietnam, Bangladesh, Turkey, USA, Mexico, and Indonesia. These nations have access to cheap materials, a competent labour force, and appropriate trade agreements that create job opportunities and revenues. Textiles, ranking as the world's seventh most traded product, have a total trade amount of approximately 882 billion US Dollars. Leading this industry is China, not only in exports but also in production and retail. In 2022, China's textile exports, including clothing and accessories, reached $323 billion, marking a 2.53% increase from the previous year. The table below is a breakdown of the global share in the CTFL industry.

Table 1: Global Share in The CTFL Industry.

Country	Total Exports
China	$286,000
Bangladesh	$46,200
Vietnam	$43,700
India	$41,400
Germany	$40,400
Turkey	$35,700
Italy	$35,400
United States	$24,600
Spain	$20,200
Pakistan	$19,200

Source: world population review

3.2 National and Provincial Overview

The South African clothing and textile sector comprises manufacturers, labour, retailers and the government. It is provincially dominant in KwaZulu-Natal, Western Cape, Gauteng and Eastern Cape as follows:

- Kwazulu-Natal (KZN) has a world-class manufacturing and air logistics platform, the Dube Trade Port SEZ. It specialises in airfreight-orientated light manufacturing, assembly and warehousing. In addition, KZN has mass-market apparel; textile manufacturing; cutting, trimming; dyeing and finishing.

- Western Cape specialises in higher value-added garment manufacturing and high fashion. It has a Cape clothing and textile cluster with over 140 retailers that focus on resource efficiency.
- Gauteng has general clothing manufacturing companies and corporate/workwear manufacturing.
- Eastern Cape has a mohair hub which is South Africa's main producer of mohair, with South Africa being the largest producer and export of mohair in the world accounting for 50% of the world's mohair exports.

The main government supporters in the CTLF sector include the Department of Trade Industry and Competition (DTIC), the International Trade Administration Commission of South Africa (ITAC), the Industrial Development Corporation (IDC) and the South African Revenue Services (SARS). According to the R-CTFL master plan, these departments are part of the executive committee oversight committed to championing the vision mission and implementation of the master plan.

Local retailers are focusing on local manufacturing to bring prices down and shorten lead times to bring fashion to the market. The government regards the clothing and textile sector as a strategic industry with the potential for significant job creation and has introduced initiatives aimed at improving domestic textile products, processes, and delivery efficiencies. The South African clothing retail landscape is shaped by several major players including manufacturers such as Prestige Clothing and Trade Call Investments Apparel, and school and workwear companies including Gem Schooling, Grand Uniforms and Jonsson Workwear. Below are some of the key retail groups and their brands:

- TFG Limited also known as the Foschini Group: TFG is one of the leading retail groups in South Africa based in Cape Town, boasting a diverse portfolio of 34 brands in fashion, sport, lifestyle, and speciality retail.
- Woolworths: It has been a dominant player in the sector for years. Known for its quality and style, it caters to various market segments.
- Pepkor: Pepkor operates various retail chains, including Pep, Ackermans, and Tekkie Town. They cater to different demographics and price points.
- Edcon Limited: Was the leading clothing, footwear and textiles (CFT) retailing group in South Africa trading through a range of retail formats, until it faced financial difficulties.
- Truworths: Focuses on trendy and affordable clothing, appealing to a wide customer base.
- Mr Price: Offers budget-friendly fashion, attracting value-conscious shoppers.

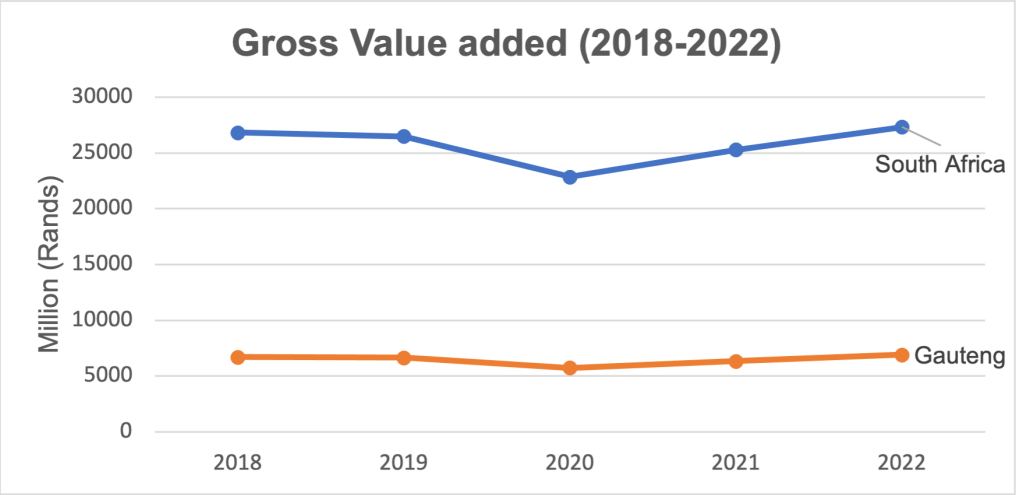
Additionally, beyond these major players, there are other emerging retailers like Zana, Zaful SA and Superbalist. Each contributes to the vibrant clothing retail scene in South Africa. These retailers

collectively shape consumer choices, trends, and accessibility to fashion.

3.3 Gross Value Added

Figure 2 below provides a comprehensive comparison of the Gross Value Added (GVA) within the CTLF sector for Gauteng and South Africa over the period spanning from 2018 to 2022. The graph explains that Gauteng's performance within the CTLF sector does not significantly impact national economic conditions. Despite being a major economic hub, Gauteng's influence on the overall economic landscape of South Africa, as depicted by the GVA, remains relatively contained within the CTLF sector. Notably, the year 2020 stands out in the data, revealing a nationwide decline in GVA, coinciding with a similar trend in Gauteng. This decline can be attributed to the unprecedented global challenge posed by the COVID-19 pandemic. The pandemic led to widespread disruptions in economic activities impacting the CTLF sector both at the regional and national levels.

Figure 2: Gross Value Added

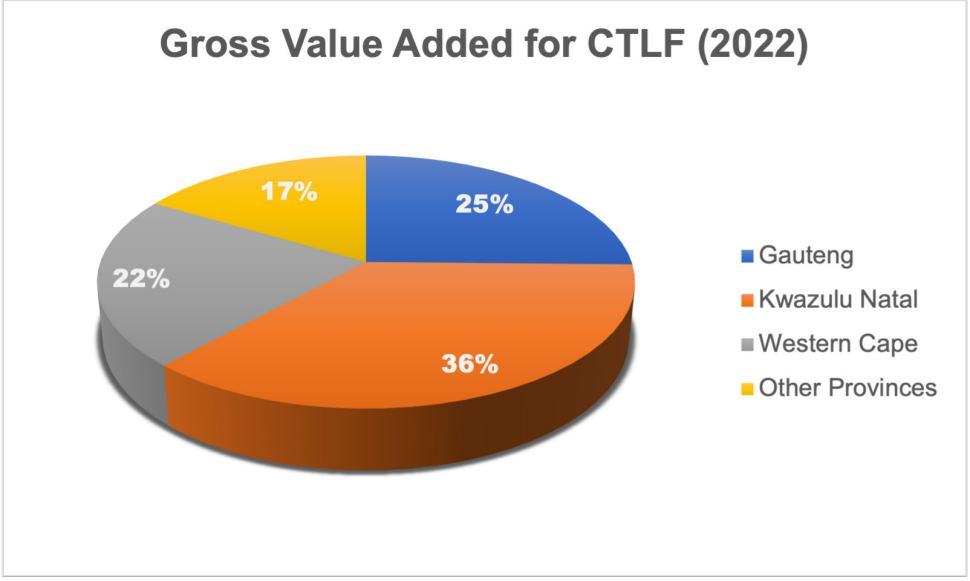


Source: Quantec, 2024

3.4 Gross value-added share for CTLF, 2022

In Figure 3 above, the Gross Value Added (GVA) for the Clothing Textile sector is illustrated, comparing the contributions of Gauteng, Western Cape, and KwaZulu-Natal and the other provinces. KwaZulu-Natal stands out as the dominant player in the sector, holding a substantial 36% share.

Figure 3: 2022 Gross Value Added for CTLF



Source: Quantec, 2024

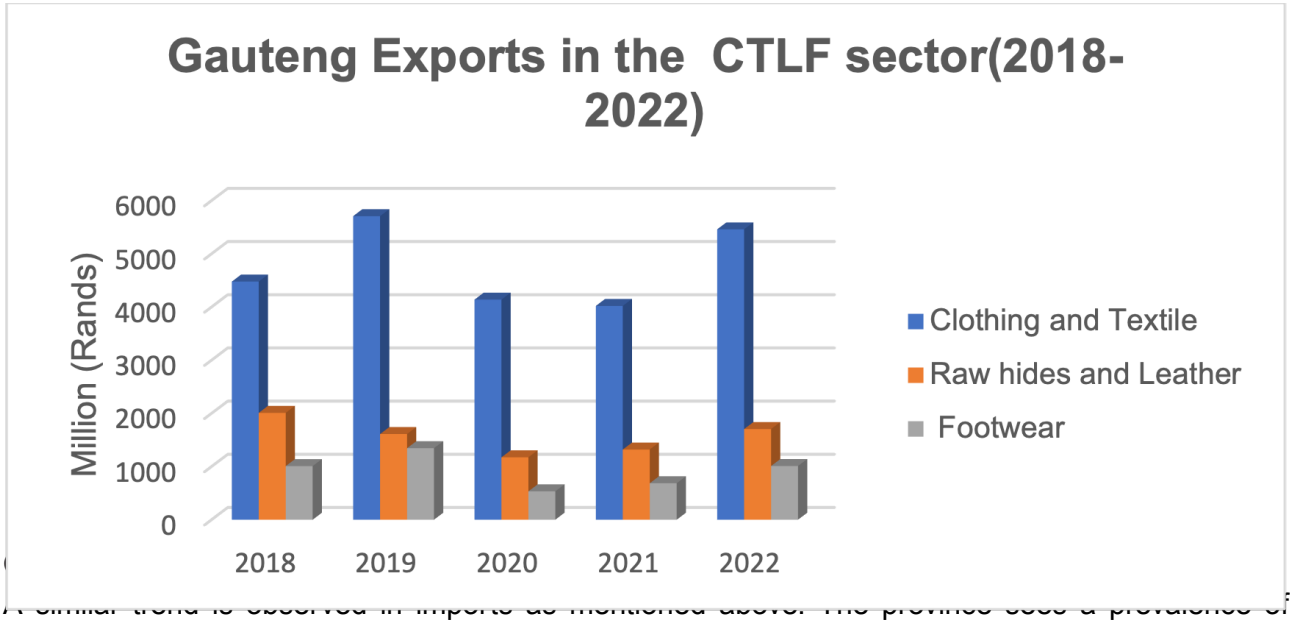
Following closely is Gauteng, contributing 25%, and the Western Cape, accounting for 22%. This breakdown indicates that Gauteng does not hold the position of economic leader within the CTLF sector. It is noteworthy to emphasise the role of KwaZulu-Natal in driving the sector's growth, given its significant share. The KZN government's recognition of the critical role of investment in economic development is highlighted by its explicit commitment to creating an environment conducive to investment, underscoring the importance of attracting financial support for the sector's expansion. Additionally, the mention of ensuring effective infrastructure is in place suggests a comprehensive approach to development, recognising that not only financial investments but also a robust infrastructure are essential for the sustained growth of the CTLF sector in KwaZulu-Natal.

3.5 Imports and Exports

The overwhelming prevalence of Asian imports in South Africa has significantly contributed to the underwhelming economic performance of the local CTLF sector. This issue is not confined to a specific region but has national consequences, affecting key economic players such as Gauteng. The trade imbalance between imports and exports is particularly visible, portraying a challenging scenario for the sector. On a national scale, the sector wrestles with a situation where the influx of imports surpasses the volume of goods being exported. This trade deficit raises concerns about the sector's competitiveness and its ability to sustain itself in the face of international competition, primarily driven by the prominence of Asian imports. Zooming into Gauteng, a province that plays a pivotal role in the country's economic landscape, the situation is no different. Despite being a significant economic hub, Gauteng is not immune to the challenges posed by the dominance of Asian imports. The sector in Gauteng experiences a trade gap where the imports outweigh the exports, further intensifying the economic strain felt nationally.

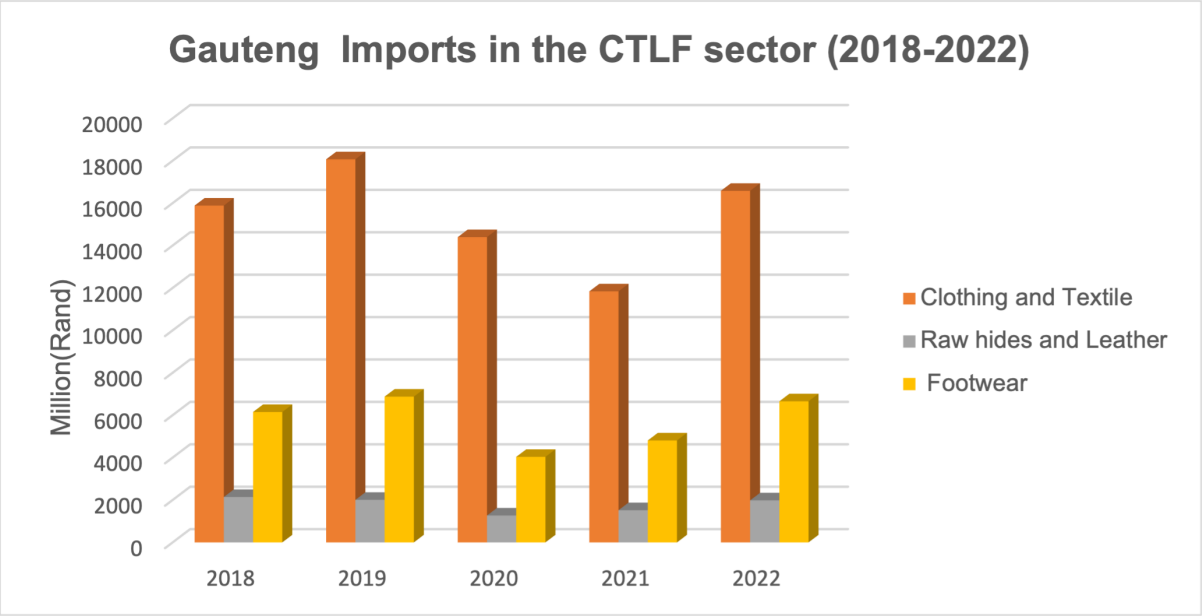
The figure presented below illustrates the export distribution within the provinces. Clothing and Textiles take the lead, followed by raw hides leather, and footwear respectively.

Figure 4: 2018-2022 Gauteng Exports in the CTLF



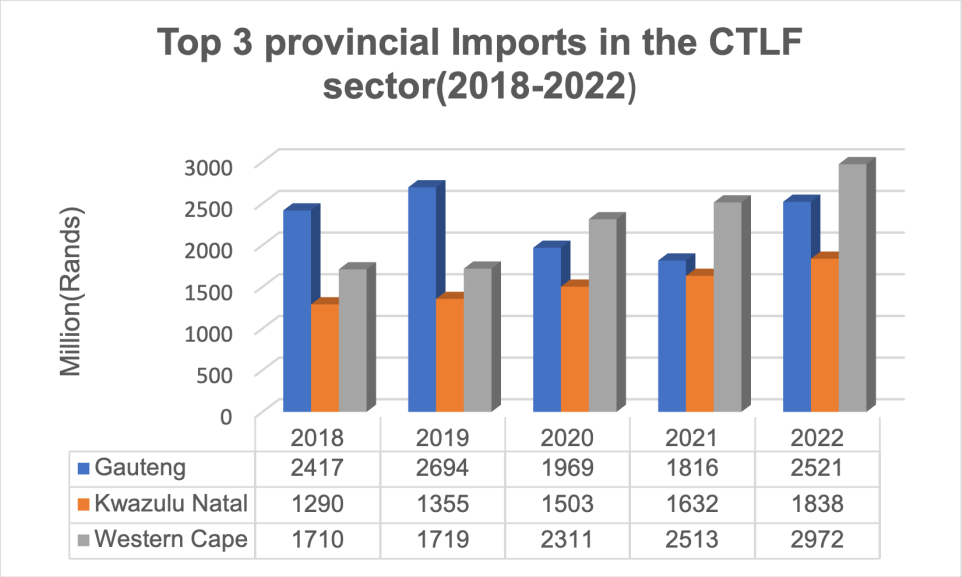
clothing and textile imports, with footwear following closely, and raw hides and leather ranking third. The upward trajectory of these import categories has been consistent over the years, as depicted in the figure below.

Figure 5: 2018-2022 Gauteng Imports in the CTLF Sector



Source: Quantec, 2024

Figure 6: 2018-2022 Top 3 Provincial Imports in the CTLF Sector

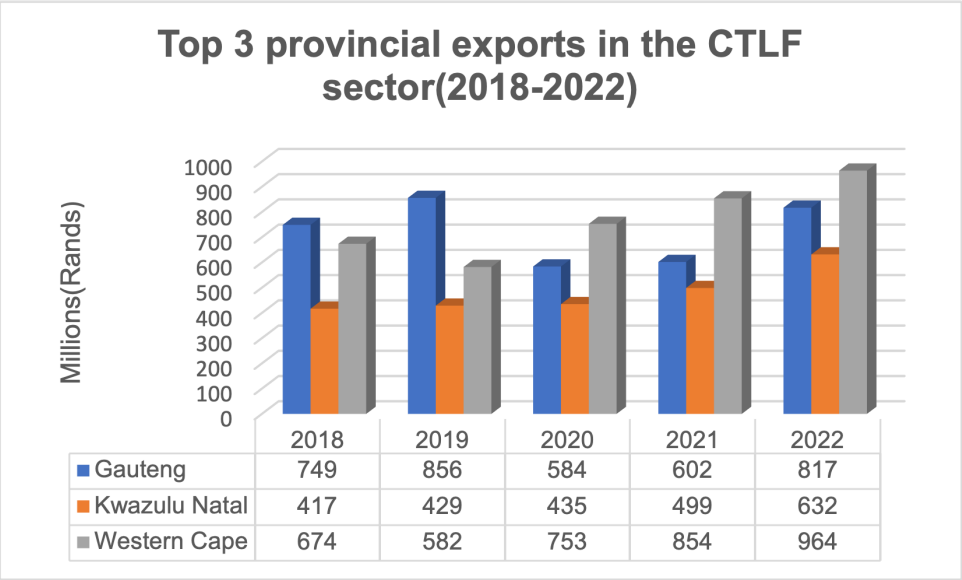


	2018	2019	2020	2021	2022
Gauteng	2417	2694	1969	1816	2521
Kwazulu Natal	1290	1355	1503	1632	1838
Western Cape	1710	1719	2311	2513	2972

Source: Quantec, 2024

The above figure illustrates that Gauteng is the primary importer in the CTLF sector, followed by the Western Cape and KwaZulu-Natal. Despite holding the position of the main importer, Gauteng experienced a notable decline in imports in 2021, suggesting potential shifts in economic conditions or changes in supply chain dynamics. In contrast, KwaZulu-Natal exhibits lower import volumes compared to Gauteng and the Western Cape. This variance could be attributed to factors such as local production capabilities, strategic partnerships, or unique market demands specific to the province of KwaZulu-Natal.

Figure 7: 2018-2022 Top 3 Provincial Exports in the CTLF Sector



Source: Quantec, 2024

The above figure illustrates that Gauteng and Western Cape are the primary exporters in the CTLF sector, followed by KwaZulu-Natal. The Western Cape region plays a significant role in the CTLF sector due to various factors such as a well-established manufacturing base, access to international markets, and possibly a concentration of industries related to clothing, textiles, leather, and footwear. Gauteng, being another primary exporter, benefits from factors like a strategic location, robust infrastructure, and a strong economic base. It also hosts key businesses involved in the CTLF sector. KwaZulu-Natal, although not the leading exporter, still holds a notable position in the CTLF sector. This could be due to its own set of strengths, such as specific expertise in certain areas of manufacturing or having a supportive business environment.

3.6 Employment

The CLTF sector is one of the most labour-intensive sectors, it is dominated by SMMEs with a higher proportion of the jobs in the sector being unskilled and semi-skilled. According to Productivity SA 2022 female workers account for 80% of the labour force, with formal employment of approximately 220,000 people representing a slight increase from previous years. Data on informal employment is scarce but estimated to be significant, adding complexity to the overall picture.
Distribution of Employment is as follows:

- Clothing: Accounts for the largest share of employment, around 120,000 people.
- Textiles: Employs around 50,000 people.
- Leather and Footwear: Combined, employ around 40,000 people.

Job creation remains a key challenge, with the R-CTFL Master Plan aiming to add 100,000 new jobs by 2030.

4. SWOT ANALYSIS

Table 2: SWOT Analysis

Strengths	Weaknesses
• Government support: The government has shown commitment to the CTLF industry through various initiatives, including support for skills development, technology adoption, and export promotion. • Diverse and growing domestic market: South Africa's largest retail market is located in Gauteng. Travellers come to Gauteng to purchase textile and apparel items, either for their use or to resell back to their home provinces. • Unique design and cultural heritage: South Africa's diverse cultural heritage offers inspiration for unique and innovative designs in clothing, footwear, and other products, providing potential for differentiation in the global market. • Abundant raw materials: The South African CTLF sector boasts of spillover raw materials mostly wool and leather.	• High production costs: South Africa faces challenges with high labour costs, electricity prices, and logistics costs compared to some competitor countries, impacting export competitiveness. • Loadshedding: Derails production. Hindering competitiveness and investment. • CLTF is not a dominant sector in Gauteng: The province does not have a harbour and typically has fewer clothing and textile factories compared to other provinces, e.g. KwaZulu-Natal. • Limited innovation and technology adoption: The CTLF sector in South Africa lags behind some leading nations in terms of technological advancements and automation, affecting productivity and efficiency. • Infrastructure deficiencies: Inadequate infrastructure, particularly in transport and logistics, hinders efficient movement of goods and materials within the country and to international markets. • Skills mismatch: While a skilled workforce exists, there are gaps in specific skills needed for advanced manufacturing and design processes, particularly in the textile and technical textile sectors.
Opportunities	**Threats**
• Growing global demand for ethical and sustainable fashion: Consumers are increasingly conscious of ethical and sustainable practices in the fashion industry, there is an opportunity to leverage its commitment to responsible manufacturing and use of local materials to cater to this growing demand.	• Competition from cheap imports: the market is flooded with cheaper imports, which puts pressure on local manufacturers and reduces profit margins. • Lack of innovation: Developed countries with advanced technologies and large economies continue to be major players in the global CTLF market, posing competitive and technological challenges.

Opportunities	Threats
• E-commerce and online retail: The rise of e-commerce presents an opportunity for South African CTLF brands to reach wider domestic and international audiences, bypassing traditional retail limitations. • Specialisation in niche markets: Focusing on specialised product segments like technical textiles, activewear, or luxury goods can help South African CTLF brands differentiate themselves and command premium prices. • Regional trade agreements: South Africa's membership in regional trade agreements, such as the Southern African Development Community (SADC) and the African Continental Free Trade Area (AfCFTA), provides access to larger markets and potential export opportunities. • Investments in technology and innovation: Embracing and adopting advanced technologies in design, manufacturing, and supply chain management can improve efficiency, competitiveness, and product quality.	• Fast fashion trends: The fast fashion industry's rapid-cycle production and low prices can create pressure on South African CTLF companies to compete on cost rather than quality or sustainability. • Social unrest and labour disputes: Labor unrest and social instability can disrupt production and damage the sector's reputation.

Overall, the Gauteng CTFL sector has significant potential for growth but needs to address its weaknesses and capitalise on emerging opportunities. It is also crucial to note ongoing developments such as the following challenges and responses:

July 2021: KZN and Gauteng unrest

- The July 2021 unrest damaged manufacturers as they were starting to recover from Covid-19.
- 56 CTFL factories were damaged, with some destroyed.
- Over 994 clothing and footwear retail stores were looted resulting in cancellation of manufacturing orders.
- A Rapid Response Fund (RRF) was introduced to support affected CTFL manufacturers.

April 2022: KZN floods

- The industry lost one week of production. 23 CFTL factories were irreparably damaged. IDC allocated R500 million to rebuild businesses.
- Confiscated illegally imported blankets seized by Customs have been donated to the victims of the April 2022 KZN flooding, overseen by representatives of industry and organised labour.

Global supply chain disruptions

Large increases in commodity prices over 2020 and 2021.

- Cotton lint increased by 90% and PVC by 150%.
- Global supply chains were further disrupted by the war in Ukraine.
- Poor consumers' and workers' livelihoods are adversely affected by higher food and fuel prices.

The Impact of E-commerce Retailers such as Shein and Temu

These retailers offer significantly lower prices offering a wider range of affordable clothing to consumers.

- This harms the local retail industry including:
- Job Losses: The lower production costs in China have made it difficult for South African manufacturers to compete, leading to job losses in the domestic textile industry. This can have a negative impact on the overall South African economy.
- Quality Concerns: While some Chinese textiles are high quality, there can be a perception of lower quality associated with some imports. This can be a challenge for retailers looking to maintain a reputation for quality products.
- Reduced Local Sourcing: Reliance on Chinese imports reduce the bargaining power of South African retailers and weakens the domestic textile industry. This can limit innovation and responsiveness to local trends.

This requires Shifting Strategies; South African online traders such as Takealot and Zando are increasingly looking to diversify their sourcing strategies which include:

- Increased Local Sourcing: Government initiatives and consumer interest in local products are encouraging retailers to source more from South African manufacturers.
- Focus on Quality and Niche Markets: Competing with China on price is difficult, so some retailers are focusing on higher quality, ethically sourced clothing or catering to specific niche markets.

5. BENCHMARKING

5.1 Comparison of Other Countries

This section aims to delve into the comparative analysis of the CTLF sector across selected countries focusing on the competitive advantages which could be adopted. The focus is on government support offered to the sector, exploring of production capacity and capabilities, trade patterns and market dynamics that inform policy-making specifically in China, Bangladesh and Vietnam

China

China's Textile Industry is special and complex and is also an important part of China's economic development. According to Market Research Online's 2023-2029 China Textile Industry Market Development Scale and Investment Prospect Trend Report, the total output value of China's textile industry was 643.3 billion yuan in 2018, a 7.4% increase from 2017. The market size was 596.7 billion yuan, up 8.8% from 2016. At the same time, according to the industry structure in 2018, the output value of the textile and garment industry reached 330.33-billion-yuan, accounting for 51.3% of the total.

The competitive advantage of China's textile industry depends in large part on its solid industrial

foundation and cheap cost. In comparison with its overseas counterparts, China's textile industry shows a competitive advantage in the following aspects:

- The advantage in factor endowment (The abundant supply of primary factors such as labour and related materials is essential to China's textile industry and has gained many economic benefits in the textile industry without a loss of the comparative advantage in labour supply, and such an advantage is a driving force for the textile industry's further development).
- Superiority in market scale (China is the largest and fastest growing developing country; whose vigorous economic development and improving living standards bring expanding demand both in quantity and quality for textile products. This indicates a tremendous potential domestic market, so there are excellent development opportunities and a competitive environment for the textile industry of China).
- Large workforce: China possesses a vast and diverse labour pool, providing access to a significant number of workers at relatively lower wages compared to developed economies.
- Strong infrastructure: China has invested heavily in developing its infrastructure, including transportation networks, power grids, and industrial parks, facilitating efficient movement of goods and resources within the CTLF sector.
- Market Access and Integration: Joining the WTO in 2001 significantly lowered trade barriers for China, granting it access to major global markets. China has actively pursued regional trade agreements, further opening market access and reduced trade costs.

CTLF government support programs:
Export Incentive Program (Government Assistance to increase fabric exports): Measures under the program to upgrade the textile industry through accelerating technical, reforms and strategic restructuring of textile enterprises, including substituting imported fabrics or expanding fabric exports.

Brand Development Fund: The fund serves the purpose of supporting companies in the implementation of brand development programs, supporting companies in participation in national and international exhibitions, brand promotion activities, international exchanges, training and seminars related to brand building, and supporting other public services that facilitate brand building.

Favourable tax policies and export incentives: The Chinese government actively supports the CTLF sector through tax breaks, subsidies, and export promotion programs, making it more competitive in the global market.

Industrial planning and targeted investments: The government prioritises strategic development of the CTLF sector, directing investments towards critical areas like technology, skill development, and infrastructure improvement.

Bangladesh

Bangladesh's textile and garment industry is a major contributor to the country's economy, and it is a vital player in the global textile and apparel market. In addition, the garment industry is also a significant source of employment and income for Bangladesh, with more than 4 million people (about twice the population of New Mexico) working in the sector (World Fashion Exchange, 2023). Bangladesh is the second-largest ready-made garment (RMG) manufacturer and exporter in the world. The RMG industry of Bangladesh has become one of the fastest-growing industries globally and is the main source of foreign earnings. In 2020, Bangladesh contributed 6.4% toward the global RMG market share. This number is greater than some competitor countries like Vietnam (6.2%),

India (3.3%), and Turkey. The huge volume of garment exports helped the RMG industry to grow at a constant rate every year (Swazan et al, 2022).

Competitive Advantages of the Bangladesh RMG Industry

- The size of Bangladesh's RMG manufacturing enterprises also provides a competitive advantage because large manufacturing firms often have more capital and human resources. They also have a higher capacity to absorb the risk than smaller ones. According to Swazan et al (2022), the average size of a Bangladeshi firm is 797 employees per firm, which is much higher than some competitor countries like Vietnam (426 employees per firm) and China (269 employees per firm).
- The government of Bangladesh has also taken many steps to enhance the economy through liberalisation policies and reforms that brought in foreign investment in the RMG manufacturing industry. A bonded warehouse is one of the facilities that has been provided by the Bangladeshi government on which RMG firms can import raw materials without paying any import duty The government of Bangladesh also established the Export Processing Zone (EPZ) to help the RMG manufacturing industries to grow (Hossian et al, 2019).
- Additionally, product diversification and export market diversification helped Bangladesh to become a powerhouse in RMG export. The availability of domestically produced raw materials for knitwear has boosted the knitwear exports for Bangladesh, whereas the export firms must rely on imports for manufacturing woven products (Swazan et al, 2022).

CTLF government support programs:

- Cash incentives.
- Avoidance of double taxation for joint venture projects.
- Electricity and gas tariff.
- Income tax exemption for up to three years for foreign technicians.
- Removal of Energy Crisis.
- Appointment of an advisory committee to represent the industry to the government.
- Duty-free facility to import raw materials.
- Duty-free import of capital machinery.

Vietnam:

Vietnam is recognised as one of Southeast Asia's leading textiles exporting nations, known for its superior garment manufacturing industry. Like Bangladesh, Vietnam's success in garment manufacturing is attributed to the presence of an inexpensive, yet proficient workforce and cost-effective production expenses (Fashinza, 2023).

Manufacturers from Vietnam mainly export to countries like the US, Japan, and South Korea. As per data published by Fibre2Fashion, garment exports in Vietnam stood at $32.750 billion, growing by 9.9% since 2020. The country has carved a niche of its own, with its production of fabrics and garment dyes being utilised by brands across the globe.

Vietnam's success in the clothing and textile industry can be attributed to many factors such as natural resources; an open economy; low labour costs; and table cross-border trade. These factors, coupled with investments in infrastructure, skills development and production capacity, have stimulated the development of Vietnam's textile and garment industry. Vietnam has attracted major international

brands and retailers and has become an important source of supply (Vietnam Plus, 2023).

Economic reforms: Doi Moi policy - Implemented in 1986, this policy shifted the economy from central planning to a more market-oriented system, encouraging private enterprise and foreign investment and Trade agreements - Vietnam actively participates in numerous free trade agreements, making it attractive to international brands due to reduced tariffs and easier market access.

Industry strengths: Growing domestic market - Vietnam's domestic market for clothing and textiles is growing rapidly, providing further opportunities for growth and diversification - while initially focused on basic garments, Vietnam's textile industry is increasingly diversifying into more technical and higher-value products. Sustainability efforts - Growing awareness of environmental and social responsibility is pushing the industry towards sustainable practices, which can attract ethical brands.

Vietnam's CTLF sector has witnessed remarkable export growth in recent years, exceeding Bangladesh's footwear exports and becoming a major apparel exporter. It is strategically diversifying its CTFL industry beyond basic garments, attracting investment in high-tech textiles and technical apparel.
CTLF government support programs:
Vietnamese government actively supports the CTLF sector through infrastructure development, skills training programs, and trade agreements.

It is vital to recognise that the CTLF sector is dynamic and ever-changing. Despite being the largest exporter of clothing and textiles, China is losing market share to the rest of the globe. Bangladesh and Vietnam appear to be benefiting from China's loss. Despite these increases, China continues to export more than the rest of the globe, including the top five.

5.2 Comparison Amongst Provinces

The CTFL industry is one of the most labour-intensive segments of South Africa's manufacturing industry. CTFL manufacturers are predominantly based in the Eastern Cape, Gauteng, KwaZulu Natal and the Western Cape. The industry is supported by two major clusters – the Cape Clothing and Textile cluster and the KwaZulu Natal Clothing and Textile cluster.

KwaZulu-Natal (KZN) Province:

Retail-Clothing, Textile, Footwear and Leather (R-CTFL) is an important sector in KZN and employs about 90,000 in South Africa with 130,000 being employed informally. KwaZulu-Natal contributes about 43% of R-CTFL (Trade & Investment KwaZulu-Natal. (n.d.)). KZN has an established Hub and the largest concentration of CTFL companies in South Africa, particularly in Durban and Pietermaritzburg. Major brands and manufacturers have operations in the province, making it a key production and export centre. The province has a broad CTLF environment that includes apparel, footwear, leather goods, and technical textiles, resulting in stability and growth potential. Furthermore, the province actively supports the sector with programs such as the KZN Clothing & Textile Cluster, which promotes collaboration and industrial development.

KZN Clothing, Textile Cluster Programmes:

World-class *manufacturing*: The World Class Manufacturing (WCM) Programme is designed to develop the competitiveness of individual firms through benchmarking and the implementation of

foundational lean business practices.

Value Chain Alignment: The Value Chain Alignment (VCA) programme focuses on developing competitive and responsive local value chains.

Retailer interaction: The KZN CTC engages with domestic retailers to facilitate the implementation of quick response, which has the knock-on effect of increasing demand from local suppliers who have a greater capacity to react to in-season consumer trends.

Best practice research/dissemination: Each year the KZN CTC codifies and disseminates relevant research aligned to industry needs or emergent trends. Research ranges from macro trade level studies to the micro value chain or firm-level case studies.

Boost SME: The programme was developed to boost SMEs' competitiveness and profitability. Due to the size, structure, and capacity of many KZN-based SMEs, owners often struggle to attend corporate events. As a result, SMEs receive direct strategic and consulting support through this programme.

Skills Development Programme: designed to address two key issues. The first is the development of pre-production skills which determine a company's ability to position itself as a quick-response supplier. The second is the need to upskill management to ensure improved control of the entire pre-production and production pipeline.

Durban Textile and Leather Incubator:

The Durban Textile and Leather Incubator receives support from the Durban University of Technology, SEDA, eThekwini Municipality, and the Department of Economic Development, Tourism, and Environmental Affairs. They concentrate on fostering entrepreneurs, empowering young people, and aiding small businesses by connecting them with Enterprise Supplier development initiatives backed by government and commercial organisations. The incubator specialises in teaching SMMEs the art of sewing and embroidery for clothes. They offer support to SMME's to help them develop into thriving businesses.

The incubator offers benefits such as:

- Skills development
- Access to funding, mentorship, and resources.
- Market access linkages
- An opportunity for SMMEs to use the machinery for their orders.

Western Cape Province

The Cape Town clothing and textile industry contributed R4.4 billion to the metro's export sector in 2017 and is the second largest employer within the local manufacturing sector.

The Western Cape province is known for its focus on high-value, niche CTLF products, catering to both domestic and international markets. Its reputation for quality attracts skilled workers and premium brands. Manufacturers of higher value-added garments are predominantly located in Cape Town, which is regarded as the country's fashion and design capital. Cape Town is ideally positioned to take advantage of the shifts taking place in the global CTLF industry and the emergence

of clothing manufacturing hubs in Africa. South Africa's preferential access to the US market under the African Growth and Opportunity Act, combined with its access to regional value chains on the African continent, provides significant competitive advantages in the CTLF sector.

Organisations like Clotex and the Cape Town Fashion Council support Cape Town's apparel and textile sector, working at various stages of the value chain with the shared goal of promoting industry growth in the city. The city's robust collaboration across the industry's value chain and the existence of prominent and innovative firms facilitates the adoption of quick-response models more readily than other places in the country (Invest Cape Town. (n.d.)).

Although Cape Town's garment and textile industry has a trade deficit, its exports have seen significant growth in recent years. Exports increased by 12.6% between 2014 and 2015, mostly due to significant growth in exports to Namibia, which is Cape Town's primary market for clothing and textile items. Exports to the United States under the African Growth and Opportunity Act (AGOA) have surged by 53.2%, making it Cape Town's fastest-growing top export market (Wesgro, 2016).

As a result of an unprecedented drought in 2017 and 2018, the Western Cape clothing and textile industry has incorporated a strong focus on resilience. The industry has made significant efforts to adapt to shocks and stresses related to resource scarcity. According to the Cape Trade Portal. (n.d.), as the industry recognises that resource efficiency is increasingly important, strategic programmes funded by the City of Cape Town and provided by Green Cape support the local industry in navigating potential threats related to climate change and building resilience.

Cape Town's Clothing & Textiles Competitive Advantages

Government efforts primarily aim to enhance industry competitiveness and stimulate local demand. This also aims to create efficiencies across the entire value chain, from supplier to retailer. These consist of the Clothing and Textiles Competitiveness Programme (CTCP) and the creation of various regional and product-specific clusters.

The Cape Clothing and Textile Cluster is a collaboration between the Western Cape provincial government and 16 regional manufacturers. South Africa's four primary clothing stores, namely Edcon, Foschini, Truworths International, and Woolworths, are members of the cluster. This business aims to enhance the competitiveness of the garment and textile sector in South Africa and the Western Cape to guarantee ongoing prosperity. Some competitive aspects include:

- The city's close distance to large merchants, local designers, and manufacturers results in a vertically integrated value chain due to their head offices being in Cape Town. One that can more effectively adapt to rapidly shifting fashion trends.
- Cape Town has a robust heritage of Cut-Make-Trim (CMT) abilities, particularly among seamstresses. This guarantees an ongoing tradition of excellence and skillful workmanship.
- The convenient proximity to the Port of Cape Town leads to reduced transportation expenses for textile materials.
- The sector is well-organised and backed by many government-funded sector entities.
- The Cape Clothing and Textile Cluster (CCTC) includes 25 leading firms, primarily manufacturers but also major retailers that are committed to supporting the development of the local manufacturing industry.
- The Department of Trade and Industry provides incentives and assistance through its

Clothing and Textiles Competitiveness Programme and the Competitiveness Improvement Programme.

- Cape Town is a prominent centre for design, attracting numerous top fashion designers and talented individuals to establish themselves in the city.

With decreasing trade barriers and increasing regional integration, South Africa's textile manufacturers and factories in Cape Town will continue to thrive and expand (Invest Cape Town. (n.d.).).

Cape Clothing Cluster Programmes:

World Class Manufacturing Programme: is designed to address the following industry challenges:
Operational Process Improvement
Performance Measurement
Skills Development
Supplier Development

Quick response: The second major programme of the CCTC is focussed on developing a better understanding of the practical, operational requirements of a Quick Response (QR) value chain model, and then introducing the relevant knowledge and tools to local industry. The distinguishing feature of the QR model, pioneered by Inditex, the parent company of the Zara retail brand and the largest private-label apparel retailer in the world, is its shift away from price as the primary market driver, towards greater emphasis on flexibility and speed-to-market. This enables the retailer to respond at short lead times to observed customer preferences, thereby reducing markdowns and stock-outs, thus generating greater retained margins than under the traditional long lead time model.

Cluster interventions are targeted at both manufacturers, to enable them to exploit their proximity (and thus lead time) advantage relative to international competition, and retailers, to educate them on the benefits of shifting towards a QR sourcing model and the operational changes required to realise those benefits (Cape Clothing Cluster. (n.d.)).

Gauteng Province:

Gauteng, with Johannesburg as its centre, is South Africa's economic powerhouse. While not as concentrated in CTFL production as KZN, it houses important value-added activities like design, marketing, and distribution. Gauteng's large urban population provides access to a diverse talent pool and skilled workforce for the CTFL sector, including designers, technicians and marketing professionals. Gauteng boasts well-developed transportation infrastructure and logistics networks, facilitating the movement of materials and finished goods within the CTFL sector, and supporting efficient production and distribution.

Gauteng province lacks formalised groupings that help enterprises in the CTFL industry, unlike the Western Cape and KZN provinces which have the Cape Clothing cluster and KZN Clothing cluster. Clustering is crucial for linking and advancing enterprises within the same industry. This notion emphasises businesses collaborating closely in the same industry and geographic location for strategic purposes, which is an initiative the Gauteng Provincial Government should consider developing this labour-absorbing sector through partnership and collaboration.

These are just three key provinces; other regions, like the Eastern Cape and Mpumalanga, also make

significant contributions to South Africa's CTFL sector. Overall, the South African CTFL industry has a diversified set of strengths and weaknesses among provinces. Understanding these regional indications is critical to its sustained growth and success.

6. RECOMMENDATIONS FOR SECTOR SPECIFIC INTERVENTIONS

Clothing, Textiles, Leather and Footwear Sector Development Programme

The overarching purpose of the project is to foster the growth and sustainability of the Clothing, Textiles, Leather, and Footwear (CTLF) sector by strategically focusing on skills development, job placement initiatives and SMME support and development. This multifaceted approach aims to address key challenges within the industry and contribute to its long-term vitality. The envisioned programme will be implemented in phases over three financial years.

The first financial year (2024/25) will focus on developing and upskilling 50 unemployed youth into fully qualified textiles and leather niche product manufacturers. The intake for the training will be 50 trainees and they need to be placed for employment at the end of the training. The impact of this programme on the learners is that they will become entrepreneurs and/or more marketable to the industry; they could then become active participants in the South African economy. Furthermore, the programme should be able to establish partnerships with the industry, with regards to job placement.

The second financial year (2025/26) will focus on entrepreneurship, with the emphasis on Localisation and SMME support – to provide capacity and capabilities to produce more local brands. This programme will identify 30 textile and leather niche product manufacturers from the townships. The aim is to equip and improve their production processes including the element of quality assurance. This opportunity will allow them to be able to produce globally competitive niche products.

Lastly, the third financial year (2026/27) will focus on Market Access. Since the entrepreneurs would have met the level of being globally competitive on manufacturing the textile and leather niche products, the main aim of this programme is to get by-in from both the private and the public sector in order to procure from these entrepreneurs. This programme will focus on getting confirmations and the commitments of the off-take agreements.

By integrating these elements, the project aims to create a dynamic and skilled workforce, strengthen the CTLF sector through SMME development, and contribute to economic development.

Market Access Facilitation Workshop

The clothing, textile, leather and footwear sector stands as a cornerstone of our economy, playing a pivotal role in job creation and fostering economic growth, particularly through the involvement of Small, Medium, and Micro Enterprises (SMMEs). These enterprises serve as the lifeblood of the sector, driving innovation, creativity, and entrepreneurial spirit. However, despite their integral role, SMMEs in the clothing, textile, leather and footwear industry frequently encounter hurdles that impede their ability to thrive. One of the primary obstacles faced by SMMEs in this sector revolves around market access facilitation and compliance with tender requirements. While the demand for products remains robust, accessing markets and navigating the complexities of tender processes pose significant challenges for these enterprises. Limited resources, lack of expertise, and stringent regulatory requirements often act as barriers, hindering the growth potential of SMMEs and constraining their ability to compete effectively.

Considering these challenges, the department recognises the urgent need to provide targeted support and assistance to SMMEs operating in the clothing, textile, leather and footwear sectors. To this end, Sector and Industry proposes to host a workshop(s) specifically tailored to address the unique needs and concerns of these enterprises. These workshops will serve as a platform for knowledge exchange, capacity building, and collaboration, aimed at empowering SMMEs to overcome obstacles and unlock their full potential.

The proposed workshop aims to support SMMEs in enhancing their understanding of the environment they operate in and thus assisting enterprises to gain key insights that will be beneficial for their development. As such, the objective of the workshop(s) is:

- To enhance SMMEs' understanding of market access opportunities within the clothing, textile, leather and footwear sector in Gauteng.
- To provide SMMEs with an understanding of government procurement and local content.
- To provide guidance and support on navigating tender processes and compliance requirements - effective tendering applications including writing, submitting a clear and compelling tender submission, and interpreting and understanding the tender requirements.
- To facilitate networking and collaboration among SMMEs, industry stakeholders, and procurement entities.

7. CONCLUSION

Although the CTLF sector displays capabilities and key opportunities that the province should take advantage of, this sector is under extreme pressure in terms of competing with already established companies and imports. The lack of competitiveness that exists within the sector has affected its performance and potential to develop. As such, it becomes crucial for the province to clearly understand the capabilities that exist and partner with industry players and relevant stakeholders to create informed interventions that will identify key skills, industry and SMME requirements as well as support incentives that will develop the industry so that the sector can create the much-needed jobs in the province.

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GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

2024

Construction

SECTOR PLANS



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1. INTRODUCTION

South Africa is grappling with a high unemployment rate, partly exacerbated by a chronic shortage of skilled labour. The national government has recognised the significance of the small business sector in addressing the triple challenges facing the country. Within the context of the National Development Plan (NDP), the small, medium, and micro enterprise (SMME) sector is identified as playing a crucial role in the economy. SMMEs are seen as key drivers of economic growth, innovation, and job creation.

The NDP envisioned that by 2030, SMMEs will contribute 60% - 80% to gross domestic product (GDP) growth and generate 90% of the 11 million new jobs in our country. These small enterprises have the potential to significantly contribute to GDP and have already proven to be major contributors to job creation. However, South Africa has the highest failure rate of SMMEs, with 70% - 80% of small businesses failing within the first 5 years of establishment. Therefore, there is a pressing need for support and development interventions for small, medium, and micro enterprises (SMME).

2. POLICY AND STRATEGIC ALIGNMENT

The Gauteng Provincial Government (GPG) has adopted the Growing Gauteng Together (GGT 2030) Vision 2030 to contribute to building a better nation and as part of deepening the implementation of the NDP. This will be achieved through the undertaking of economic recovery, investment attraction, industrialisation, youth employment and the township economy revitalisation initiatives. The GGT 2030 further emphasises that with appropriate support, more jobs could be created by small and medium-sized businesses, including infrastructure development and access to markets through government procurement for township businesses. This includes unlocking the potential of women, youth and persons with disability-owned enterprises across all sectors through targeted and preferential procurement, especially for small and micro enterprises. It also comprises expanded access to finance, incentives and opportunities for businesses owned by women, youth and persons with disability. This will be achieved by focusing on the ten high-growth sectors, namely:

- Energy, with a focus on new technologies and a diverse energy mix.
- Transportation and logistics.
- Information, Communication and Technology (ICT) and digital services with a focus on the gig economy.
- Tourism and Hospitality.
- Food, Beverages, Agro-processing and agribusiness.
- Construction and Infrastructure.
- Automotive, Aerospace and Defence.
- Financial services.
- Cultural and creative services.
- Cannabis industry.

It is envisaged that these sectors will yield development that will assist the province in eradicating developmental challenges. Therefore, investment, funding, and SMME development in all its dimensions and all other business developmental necessities are to be directed in firmly establishing these identified sectors.

Furthermore, GGT 2030 identified skills and incubation programmes as a mechanism to provide skills to SMMEs to develop their capabilities so that they participate in the mainstream economy and create jobs. In addition to this background, the Gauteng Department of Economic Development (GDED) is mandated to lead, facilitate and manage sustainable job creation and inclusive economic growth and development in the Gauteng City Region.

3. STRATEGIC OBJECTIVES

The Sector Plan is developed to serve the main purpose outlined as follows:
The implementation of this Construction Sector Plan will further contribute towards assisting the GPG in achieving the following strategic objectives:

- Creation of sustainable jobs.
- Increased economic growth and reduced poverty.
- Address the skills gap and mismatch of skills.
- Transformation of ten high-growth sectors.
- Attract investors into different sectors of the economy.
- Small business development.
- Township economic development.
- Promote re-industrialisation and localisation.
- Promote export of the finished products.

4. CONSTRUCTION SECTOR PROFILE SEGMENTATION

According to Global Data 2023, key sectors in the South African construction market are commercial construction, industrial construction, infrastructure construction, energy and utilities construction, institutional construction, and residential construction.

- Infrastructure construction: The project types in this sector include rail, road and other infrastructure projects. Investment to expand the country's transport infrastructure networks will support the sector's growth.
- Residential construction: The project types in this sector include single-family housing and multi-family housing. The government's focus on boosting the supply of social housing units will support the sector's growth during the forecast period.
- Energy and utilities construction: The project types in this sector include electricity and power; oil and gas; telecommunications, sewage infrastructure, and water infrastructure. Investments in long-term renewable energy projects and the government's goal of increasing the share of renewable energy in its total electricity mix from 11% in 2019 to 41% by 2030 will drive the sector's demand during the projected period.
- Commercial construction: The project types in this sector include leisure and hospitality buildings, office buildings, outdoor leisure facilities, retail buildings, and other commercial constructions. Developments in leisure and hospitality, office, data centres, and retail building projects are expected to drive growth in the commercial sector over the forecast period.
- Industrial construction: this sector encompasses project types such as chemical and pharmaceutical plants, manufacturing plants, metal and material production and processing plants, and waste processing plants. Factors contributing to the sector's growth during the forecast period include a gradual rebound in manufacturing and export activities, investments in the establishment of industrial parks, and the government's emphasis on enhancing the automotive industry.
- Institutional construction: This sector includes project types such as educational buildings, healthcare buildings, institutional buildings, research facilities, and religious buildings. Infrastructure developments in the healthcare and educational sectors are expected to drive the growth of this sector in the coming years.

The construction industry in South Africa is expected to grow by 1.9% in real terms in 2024, supported by the government's focus on infrastructure development, to achieve high economic growth and

expand access to basic services. The national government presented its Medium-Term Budget Policy Statement (MTBPS) in November 2023, announcing the establishment of the "Infrastructure Finance and Implementation Support Agency" to attract private sector finance and expertise into public infrastructure programmes. Additionally, the government plans to widen the scope for concessional borrowing, enabling private-sector investors and multi-lateral institutions to co-invest with the government in selected infrastructure projects. Growth in the South African construction industry during the forecast period will also be supported by investments in transport, energy, industrial and housing projects (Global Data Report, 2023).

4.1 Developmental Issues in the Construction Sector

According to the National Planning Commission (2019), the economy has neither grown enough nor transformed to ensure that all of society can progress. Low growth combined with poor quality education and low labour absorption has failed to create an environment in which an adequate share of benefits accrues to the poor or historically disadvantaged. Additionally, economic sectors that employ low-skilled workers such as Construction have either shed jobs or provided temporary employment in line with the cyclicality of the sector. Added to the mix is a critical shortage of skilled people. These trends have contributed to rising societal and wage inequality. These persistent inequalities generated conflict over social and economic policies such that people with capital do not feel comfortable making long-term investment decisions.

SMMEs have a crucial role in enhancing the economic status of any country, particularly in innovation, improving trade, and contributing to the GDP and main drivers of new job creation. However, the SMME sector has had to weather a lot of storms over the past few years. The most disruptive was the COVID-19 pandemic and restrictions aimed to curb its spread (Jakuja, 2019). The economic and business disruption brought about by COVID-19 restrictions has negatively impacted all business growth and sustainability, from which small and medium-sized enterprises are not exempted.

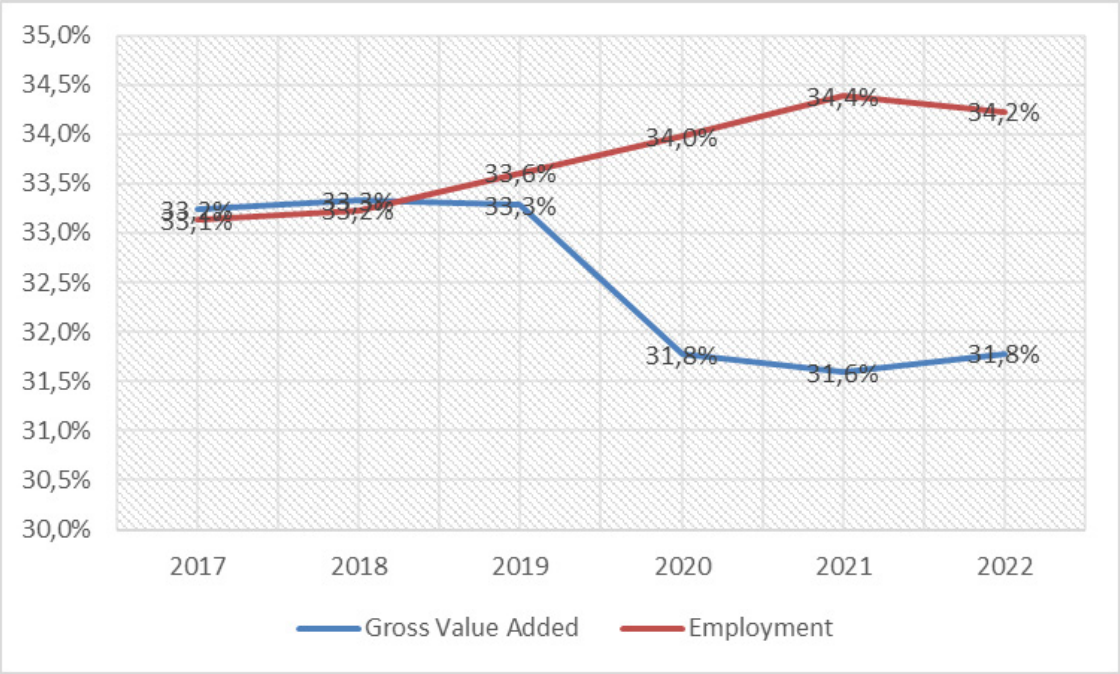
Another disruptor to the SMME sector was the unrest and looting that occurred in KwaZulu-Natal and Gauteng in the third quarter of 2021 which affected 89% of small businesses (Mundhree and Beharry-Ramraj, 2022). On the global space, Russia's war on Ukraine which results in ensuant inflationary pressures and deterioration in the global economic outlook, has now triggered new concerns regarding consumers' confidence, which could hurt demand for commodities produced as well as products and services rendered by the SMME sector. Furthermore, load-shedding continues to wound prospects for businesses without alternative power sources and pushes up the costs for those that do business; especially those relying on diesel generators (IMF 2022 and Nacker, 2022).

These developments are occurring against the backdrop of poor national ratings in terms of support for small businesses. According to the Global Entrepreneurship Monitor (GEM) 2022, South Africa's environment for supporting entrepreneurship is rated below global averages. However, the Report indicates that there are positive signals in increased early-stage entrepreneurial activity and rising entrepreneurship, but sustainability and resilience are a cause for concern given the high death rate of small businesses. South Africa has the highest failure rate of SMMEs with 70 – 80% of small businesses failing within five (5) years of being established. This affects Gauteng greatly since the province is home to most small businesses in the country. Therefore, there is a need for small, medium, and micro enterprises support and development interventions across all economic sectors.

4.2 Gauteng GVA and Employment Contribution

The Gauteng Province's profile on regional output and Gross Value Added at 2015 constant prices (Rand millions) and Employment levels in the construction industry is presented in Figure 1. The dataset provides the Gauteng construction sector's proportional contribution to the South African economy.

Figure 1: Gauteng construction GVA and Employment levels (%)



Source: Calculations based on Quantec EasyData (2023)

Before the COVID-19 pandemic, both gross value output and employment levels contributed around 33%. However, as illustrated in the figure, in the post-COVID-19 period, the percentage of employment has become more significant than production output. Recently, in 2022, employment levels declined by 2 percentage points. The GVA of the Gauteng region is calculated based on the constant 2015 prices dataset and is presented in Table 1.

Table 1: Regional output (R' millions)

Region	2017	2018	2019	2020	2021	2022
City of Joburg	38,3%	38,4%	38,4%	38,5%	38,8%	38,9%
City of Ekurhuleni	26,1%	26,1%	26,1%	26,0%	26,0%	26,0%
City of Tshwane	23,0%	23,0%	22,9%	22,8%	22,4%	22,2%
West Rand DM	6,7%	6,8%	6,8%	6,9%	7,0%	7,0%
Sedibeng DM	5,8%	5,8%	5,8%	5,8%	5,9%	5,9%
Gauteng Province	100%	100%	100%	100%	100%	100%

Source: Calculations based on Quantec EasyData (2023)

It is evident that metropolitan municipalities are comparatively dominant in construction activities (with the City of Tshwane leading). During the selected timeframe, both District Municipalities have been contributing less than 8% to the provincial construction sector. However, all these municipalities had kept consistency on recorded percentage contribution. Therefore, GPG and its social partners need to improve their collaboration efforts in their construction initiatives to ensure that production yields benefit on SMMEs empowerment, job creation, generating sustainable turnover, etc.

4.3 Selected Construction Input Materials for Gauteng

Within the scope of Construction Input Materials, the developmental objective is to develop and support the industrial capacity for building materials in townships. The focus will be based on:

- Facilitating production of Construction Input Materials through supporting existing manufacturing capacity in townships and building production nodes,

- Implementing a standards and accreditation programme for both conventional building materials and alternative building material manufacturers.
- Facilitating skills development and training for input material manufacturing.
- Promoting increased innovation, research and development in product development within Innovative Building Technologies.

The implementation of the infrastructure projects provides a major opportunity for economic development. In the delivery of Infrastructure projects, there is a 30% requirement for local content. In most instances, the requirement for 30% is largely allocated to services and labour. Furthermore, there is a limited capability of the current status quo in townships, to provide quality input materials into these projects. It is thus an opportunity to facilitate the development of local input manufacturers to produce input material to be required for infrastructure projects, i.e. standardised bricks, windows, door frames and other consumables items. Based on the project pipeline of the province, interventions must be put in place to facilitate through the rollout of infrastructure programmes the capacity to manufacture be developed in alignment with the Township Economy Revitalisation agenda (Mlambo and Mpanza, 2020).

1.1. Strengths, Weaknesses, Opportunities, and Threats Analysis

The Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis evaluates both internal and external factors that have an impact on the operation and growth of the firm. The construction industry's SWOT analysis will enable stakeholders to comprehend the state of the market and the numerous opportunities available.

Table 2: SWOT analysis of the construction sector

Strengths	Weaknesses
• The construction sector is a significant contributor to employment and economic growth in South Africa • The government has been focusing its monetary and infrastructural support on small-scale manufacturing projects, which gives emerging local players opportunities	• The industry is experiencing shrinking profit margins, poor productivity, and the rising cost of inputs • A decrease in market capitalisation • Deteriorating construction sector outlook • The competitiveness of the construction industry, paired with a significant skills shortage • The construction industry is inherently a high-impact and hazardous, industry for workers

Opportunities	Threats
• Projects are also being divided into smaller portions, which are allowing smaller construction businesses the opportunity to compete with bigger businesses • Overseas market could allow some of the larger construction companies to thrive, despite a South African work shortage • Constantly growing demand for infrastructure and services • Larger contractors have begun launching skills development programmes to meet their demand for skilled employees • The government has also begun to increase its support for social infrastructure	• The South African economy has been affected by the global economic downturn. Businesses need to focus their time and energy on risk management options • Global economic issues have caused South Africa's economic growth to slow substantially, and this makes for a sluggish construction sector • South Africa continues to experience ongoing industrial unrest, which can cause project delays and disruptions • Power outages and supply continues to be a large concern for construction companies • Shortage of skilled or trained workers within the sector at all levels • A constriction of cash flow is a risk to the success of any company's ability to make additional acquisitions and meet growth targets

Comparatively, the construction industry has low barriers to entry, which makes it relatively easy for small and micro contractors to enter the market. With the government rolling out numerous infrastructure development initiatives to stimulate the economy, opportunities exist for smaller companies to be integrated into the supply chain. Therefore, the Sector and Industry should design specific interventions for new SMME's readiness for participation.

4.4 Skills Needs for Technological Advancement and Innovation

The world is increasingly moving towards a more digitised economy. The advent of technology is changing how societies engage with the world. The change in traditional building methods is fast changing with developments in the construction sector. The building and construction industry and its professionals require advanced skills to cope with and optimally utilise technological advances in the industry. Advanced mechanisation, robotics and digitisation have some implications for the skills needs in the sector such that workers may require digital skills to operate in the sector. This will require higher level skills, especially in the niche areas to increase the upskilling of the existing labour force. These will require partnerships with institutions of higher learning focusing on technological advancement in the industry (CETA, 2016).

4.5 Skills Gaps in the Construction Industry (2021/22-2025/26)

CETA (2016) indicates that mid to high-level occupations are proving difficult to fill. According to sector stakeholders, Consulting Engineers South Africa (CESA) reports that their member organisations are experiencing difficulties in their recruitment and identifying qualified and experienced personnel to fill the engineers and technical occupations. The following competencies are needed to fill some of the industry gaps:

- Advanced electronic and electrical information.
- Soft starters.

- Wire pullers.
- Assessors.
- Health and safety practitioners; upskilling in innovative building technologies; and
- Black personnel for top-level positions in public works programmes.

The public sector limitations relating to hard-to-fill positions also bear wider systematic implications. Skills related to engineering are becoming a more serious constraint. Skills shortages in procurement are also affecting the government's ability to implement adequate demand management, adequate project planning and implementation. Many of South Africa's experienced engineers are in the private sector and the public sector struggles to recruit them and provide consultation services to the public sector at a high cost.

5. KEY INDUSTRY ROLE-PLAYERS

The purpose of this section is to identify and delineate the role of various stakeholders through which their contribution to the sector is recognised. This would also assist in finding synergies between them and the Department for sector and the SMMEs development.

5.1 The Construction Industry Development Board

The Construction Industry Development Board (CIDB) is a Schedule 3A public entity, which promotes a regulatory and developmental framework that builds Construction industry delivery capability for South Africa's social and economic growth; and a proudly South African construction industry that delivers to globally competitive standards.

5.2 SABS on Building and Construction Sector

South African Bureau of Standards (SABS) is a leading business services provider to organisations worldwide, offering a range of services for management system certification, product testing and certification, and standardisation. This includes the standardisation in the field of manufacturing, conversion and testing of building and construction, including all aspects of their effects on man and his environment relating to activities in the following fields:

- Civil and construction (steel and concrete works); and
- Building industry (bricks, paving blocks, roof tiles, cement and concrete products).

The primary activities carried out in this sector ensure that components and systems produced by the building and construction industry comply with the relevant standards. The SMMEs have become a familiar sight on the South African economic landscape. This is because South Africans have proven themselves as entrepreneurs and are looking beyond the formal employment market to make a living. SMMEs contribute significantly to the GDP and take a leading role in creating employment, thus alleviating poverty. SMMEs are often faced with a lack of resources, time constraints, lack of finance and little or no access to contracts. Many tenders or contractors require formal certification such as ISO 9001:2002 to be in place before they would award a contract. This problem seems insurmountable for the SMME.

Therefore, SABS is aiming to create partnerships to boost the competitiveness of SMMEs. The main objective of these partnerships is to establish simplified guidelines for product and system certification, which will eventually prepare SMMEs for full quality management audits, thereby encouraging and supporting local enterprises to become global players.

5.3 Construction Education and Training Authority (CETA)

The main role of the SETAs is to understand the education and training needs in their sectors, to provide skills needs, to grow training opportunities in the workplace and to improve the quality of formal education and training. The purpose of CETA is to:

- Provide skills development services to the construction sector,
- Implement the objectives of the National Skills Development Strategy (NSDS III); and
- Ensure that people obtain the critical or scarce skills that are needed to build the capacity of the construction sector to become economically sustainable and globally competitive.

To better understand the education and training needs in their sector, SETAs research the skills that employers need (the demand for skills) and the skills that providers offer through various education and training programmes (supply). If there is a mismatch between the employers and what is provided, this creates what is called a skills gap. SETAs are responsible for identifying such gaps and thereafter filling these gaps by providing appropriate skills development programmes, linking employers to education, and training providers that offer education and training programmes that can address the skills gaps. SETAs also fund several learning programmes including skills programmes, learnerships, apprenticeships and internships, including bursaries at various public education and training institutions such as Universities, Universities of Technology and TVET Colleges

5.4 Main Contractors

There are 69 company profiles including Wilson Bayly Holmes-Ovcon Ltd, the largest South African construction and engineering company listed on the Johannesburg Securities Exchange (JSE), as well as other prominent companies, Group Five, Basil Read (Pty) Ltd, etc. Additionally, public entities like the South African National Roads Agency Ltd (SANRAL) are also featured (WHBO 2022).

Due to their extensive knowledge and experience within the sector, these companies are often successful in securing large projects. While there are a few well-established entities in the construction industry, a variety of challenges impact the development and sustainability of small contractors in South Africa. Many small contractors struggle to access existing opportunities and those that do often perform poorly. Several factors contribute to this poor performance, including a general lack of technical and managerial skills and resources among small contractors. This deficiency significantly affects their ability to deliver projects effectively, leading to wasteful expenditure due to the need for re-work (Windapo and Cattell,2020).

Therefore, large companies, GPG and social partners need to foster collaboration with SMMEs in infrastructure development projects through sub-contracting. This approach will help ensure empowerment and capacity building within the construction value chain. Additionally, main contractors involved in GPG's project sites should be central to these empowerment efforts and companies should actively promote inclusive economic growth.

6. STRATEGIC INTERVENTIONS

The construction sector is poised for transformative growth, and to achieve this, these are the strategic interventions aimed at addressing key challenges, unlocking opportunities, and driving sustainable development within the sector. By implementing these strategic interventions, the aim is to revitalise the construction sector, promote economic growth, and create a lasting impact on the built environment.

6.1 Construction Incubation Programme

The Department has identified the Incubation Programme as one of the key instruments to contribute towards GGT 2030 whilst assisting in economic recovery, job creation and re-industrialisation in the province. The Chief Directorate: Sector and Industry Development is responsible for spearheading these programmes through various strategic interventions and partnerships. As such the Sector and Industry signed numerous partnership agreements with different Implementation Partners to contrivance Incubation Programme that will assist in job creation and SMMEs growth. This will be achieved by improving the capability of various economic sectors for job creation and facilitation of re-industrialisation in the Gauteng City Region through the implementation of specific economic sector interventions, transformative partnerships, improved competitiveness and incentives for a sustainable inclusive economy.

The Chief Directorate: Sector and Industry has identified the Incubation Programme as a key intervention for achieving the desired development in the small business sector. The primary objective of the Incubation Programme is to support emerging and existing small business entrepreneurs through the critical start-up stage and facilitate their transition into the mainstream economy. This transition is supported by interventions including financial management, technical training, industry compliance, and standardisation of products.

6.2 Skills Development Programme

Tubane (2020) highlighted that SMMEs within the Construction sector have insufficient productive capacity often prevents SMMEs from meeting the quantity and quality demands of goods and services in the state. A lack of capacity is often a function of multiple factors such as lack of skills, lack of adequate industrial/working space, and lack of adequate machinery and equipment. To address this, there needs to be a Broad-Based Black Economic Empowerment (B-BBEE) intervention focussing on supporting SMMEs to overcome these barriers to expand their market presence in industrial value chains and become sites of employment creation/ retention. In this context, there is a need for intervention in providing successful socio-economic development programs such as critical skills and enterprise supplier development (ESD) programmes to previously disadvantaged groups that will enable them to play a meaningful role in the mainstream of the economy of the province. This will assist in growing the economy, create decent employment jobs and reduce the inequality gap. Amongst others, the following objectives would be achieved through this intervention:

- To provide technical skills development training within the construction industry for the local communities throughout the Gauteng Province.
- To provide opportunities to the unemployed youth, women and people with disability within the local community.
- To ensure that candidates obtain the critical or scarce skills that are needed to build the capacity of the construction sector to become economically sustainable and globally competitive.
- To facilitate work experience placements for the candidates who graduated from the training programmes.

6.3 Establishment of Construction Hubs in Townships

The Department should enter into a multi-year Service Level Agreement (SLA) with an independent company to implement construction hubs, which will evolve into clusters, in township areas. The independent company should be accredited to provide incubation programmes and specialised services designed to empower and capacitate both existing and start-up businesses within the construction value chain.
The primary objectives of this programme are to:

- Address the challenges faced by suppliers of inputs and services within the construction

value chain, helping them grow their businesses and facilitate job creation.

- Overcome barriers that hinder small businesses' participation in the broader market and ensure they have adequate facilities in townships to manufacture construction inputs materials.

The Programme must create significant progress and be envisaged to form the basis towards developing a framework for a province-led enterprise supplier development (ESD) programme.

6.4 Small businesses empowerment

Many tenders or contractors require SMMEs to acquire formal certification such as ISO 9001:2002 so they could be awarded a contract. This problem seems insurmountable for the SMMEs. Therefore, a working partnership between the SABS and relevant implementing partners should be established to boost the competitiveness and empowerment of the SMMEs. The main objective of these partnerships is to establish simplified guidelines for products and system certification, which will eventually prepare SMMEs for full quality management audits, thereby encouraging and supporting local enterprises to become global players.

Furthermore, it is important for Construction Development Programmes to provide skills development services to increase the number of people obtaining critical or scarce skills needed, and to build the capacity of the construction sector to be economically sustainable and globally competitive. This could be leveraged on the following CETA's five sub-sectors within the construction industry:

- Building Construction: This is the largest sub-sector in the construction sector. It includes all contractors i.e. civil engineering contractors, steel, structural, mechanical contractors, residential and non-residential contractors.
- Roads and Civil Construction: This sub-sector includes all activities that pertain to the construction of buildings but are outside the category defined under Building Construction. This includes construction, maintenance, and repair of roads, runways, bridges, tunnels, and related structures including draining and road services.
- Built Environment Profession: This sub-sector includes architects, engineers, quantity surveyors, landscape architects, land surveyors, town and regional planners; property valuers, and project and construction managers. This group is made up of professionals governed by the Built Environment Professions Act.
- Materials Manufacturing: Activities include manufacturing various wooden fixtures, tiles, sanitary ware, ceramic products, concrete and cement products, tombstones, and roof trusses.
- Electrical Construction: The sub-sector deals with the assembling, installing, and wiring of the electrical system in new homes and buildings. This sector deals with the installation of electrical equipment and signal communication systems.

7. IMPLEMENTATION FRAMEWORK

Table 3: Action Plan for Construction Development Programme (3 years period)

Programme	Objective	Stakeholders
Construction Incubation Programme	To ensure that emerging and existing small business entrepreneurs survive the start-up stage and graduate into participating in the mainstream economy.	GDED Municipality Appointed Service Provider Implementing Partner SABS CETA CIBD
B-BBEE Skills Development Programme	To assist in unlocking broader opportunities in the construction value chain. To provide an immediate response to skills demand in local economic contexts through addressing demand and supply factors and the interface thereof within the township context. To create market access opportunities including construction (plumbing, carpentry, welding, bricklaying, painting, electrical work) and general maintenance services.	GDED Municipality Appointed Service Provider Implementing Partner SABS CETA CIBD
Establishment of Construction Hubs in townships	To assist in overcoming the barriers hindering small businesses' participation in the broader market and provide adequate facilities in townships to enable the manufacturing of construction inputs materials.	GDED Municipality Appointed Implementing Partner SABS CETA
Small business empowerment	To establish simplified guidelines for products and system certification. To increase the number of people obtaining critical or scarce skills needed, and to build the capacity of the construction sector to be economically sustainable and globally competitive.	GDED SABS Implementing Partners CETA

8. CONCLUSION

Gauteng's construction initiatives are key to unlocking the future potential of the construction industry both locally and across the continent. It is therefore important for the GPG and social partners to collaborate in infrastructure development to empower SMMEs and other underprivileged groups in the construction value chain (the government's initiative to create jobs, supporting smart city developments). This will also require the main contractors involved in GPG's project sites to be at the centre of empowerment and companies should promote inclusive economic growth, i.e. include everyone irrespective of gender, race, disability, or age.

If the skills shortage challenge facing the construction sector is not addressed, the industry will continue to shed employment. These and other challenges will impact the industry's future capacity to respond effectively to increased industry demand. Partnerships are an important lever for advancing skills development within the construction sector. To make a significant impact, partnerships must span across the sector and are diverse.

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GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

2024

CCI Industry Development

SECTOR PLANS



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1. INTRODUCTION

The vision of the National Development Plan (NDP) 2030 is to eliminate poverty and reduce inequality in South Africa by 2030. The NDP aims for the national economy to create 11 million jobs by 2030. Small enterprises can significantly contribute to the Gross Domestic Product (GDP) and have proven to be major contributors to job creation. The NDP envisions that Small, Medium, And Micro Enterprises (SMMEs) will contribute 60% to 80% to the GDP growth, with a greater percentage of these jobs expected to be created in domestic-oriented activities and the services sector. Consequently, approximately 90% of jobs will be generated by small businesses. Additionally, the NDP foresees that by 2030, the share of small and medium-sized firms in output will grow substantially, with regulatory reform and support boosting mass entrepreneurship. According to the NDP, export growth will play a major role in enhancing growth and employment, with small- and medium-sized firms being the main employment creators.

Amid the renewed emphasis on generating employment within the context of the NDP, the SMMEs sector is identified as playing an important role in the economy, serving as a key driver of economic growth, innovation, and job creation. The NDP further highlights the substantial potential for growth stimulation and employment within the construction and infrastructure sectors and agro-processing, mining, furniture, and creative industries**.** Transforming the economy and creating sustainable job opportunities necessitates increasing exports by focusing on areas where South Africa already has endowments and comparative advantages. These five identified sectors are crucial due to their potential to create jobs for low-skilled individuals, encourage private investment, lower the cost of doing business, promote spatial inclusivity, and establish strong backward linkages to supplier industries. While they offer competitive advantages for South Africa and the potential for large-scale labour absorption, these sectors should be promoted in a manner that facilitates a transition to a knowledge economy, and optimal usage of information and communication technologies.

Furthermore, the Gauteng Provincial Government (GPG) has adopted the Growing Gauteng Together (GGT) Vision 2030 to contribute to the deeper implementation of the NDP. This will be achieved through initiatives focusing on economic recovery, investment attraction, industrialisation, youth employment and township economy revitalisation. The GGT further emphasises that, with appropriate support from the social partners, more jobs could be created in various sectors through township-based small and medium-sized businesses accessing markets via government procurement.

This will be achieved by focusing on the ten high-growth sectors, namely:

- Energy, with a focus on new technologies and a diverse energy mix.
- Transportation and logistics.
- ICT and digital services with a focus on the gig economy**.**
- Tourism and Hospitality.
- Food, Beverages, Agro-processing, and agri-business.
- Construction and Infrastructure.
- Automotive, Aerospace and Defence.
- Financial Services.
- Cultural and Creative Services**.**
- Industrial Cannabis.

It is envisaged that these identified sectors will yield development that will assist the province in eradicating developmental challenges. Therefore, investment, funding, and SMME developmental necessities will be directed towards firmly establishing these sectors. Furthermore, the GGT identifies skills and incubation programmes as a mechanism to provide SMMEs with the necessary skills to develop their capabilities enabling them to participate in the mainstream economy and create jobs. Additionally, the GPG aims to lead, facilitate and manage sustainable job creation and inclusive economic growth and development in the Gauteng City Region.

2. DEFINING THE CULTURAL AND CREATIVE INDUSTRIES

Creative industries are those activities that require creativity, skill, and talent, with the potential for wealth and job creation through the exploitation of their intellectual property (DCMS, 2001). Creative Industries are also any 'economic activity producing symbolic products with a heavy reliance on intellectual property and for as wide a market as possible (UNCTAD, 2004). An alternative or additional definition of cultural goods and services derives from a consideration of the type of value that they embody or generate. That is, it can be suggested that these goods and services have cultural value in addition to whatever commercial value they may possess and that this cultural value may not be measurable in monetary terms.
Defined in either of these ways, cultural goods and services can be seen as a subset of a wider category that can be called creative goods and services, whose production requires some reasonably significant level of creativity. Thus, the creative category extends beyond cultural goods and services as defined above to include products such as fashion and software. These latter can be seen as essentially commercial products, but their production does involve some level of creativity. This distinction provides a basis for differentiating between cultural and creative industries (Creative Economy Report, 2010).

3. DEVELOPMENTAL ISSUES IN THE ECONOMIC ENVIRONMENT

The economy has neither grown enough nor transformed to ensure that all of society can progress. Low growth combined with poor quality education and low labour absorption has failed to create an environment in which an adequate share of benefits accrues to the poor or historically disadvantaged. Additionally, economic sectors that employ low-skilled workers have either shed jobs or provided temporary employment in line with the cyclicality of the sector. Added to the mix is a critical shortage of skilled people. These trends have contributed to rising wage and society inequality in society. These persistent inequalities generated conflict over social and economic policies such that people with capital do not feel comfortable making long-term investment decisions.

SMMEs play a vital role in boosting the economic status of any country by driving innovation, enhancing trade, and contributing to the GDP thus being the primary source of new job creation. However, the SMME sector has faced significant challenges over the past few years. The most disruptive factor has been the Covid-19 pandemic and the associated restrictions aimed at curbing its spread. These restrictions have caused substantial economic and business disruption, negatively impacting growth and sustainability across all sectors, including SMMEs.

- The challenges faced by SMMEs are indeed multifaceted and have been exacerbated by several recent disruptions:
- Civil unrest and looting: The unrest and looting in KwaZulu-Natal and Gauteng in the third

quarter of 2021 had a significant impact, affecting 89% of small businesses in those regions. This kind of disruption leads to immediate physical damage and long-term operational and financial challenges.

- Global Conflicts: Russia's war on Ukraine has contributed to global inflationary pressures and a deteriorating economic outlook. These factors have created uncertainty and reduced consumer confidence, which can lead to decreased demand for commodities and services offered by SMMEs.

- Load-Shedding: Ongoing load-shedding, particularly in regions with frequent power outages, has severely impacted businesses. Those without alternative power sources face operational disruptions, while those relying on diesel generators face increased costs. This adds to the financial strain and operational challenges for SMMEs.

These issues are reflected in the country's relatively poor ratings regarding support for small businesses. According to the GloQ3 Bal Entrepreneurship Monitor, South Africa's environment for entrepreneurship is rated below than global average. Nonetheless, the report highlights some positive trends, such as an increase in early-stage entrepreneurial activity and rising entrepreneurship. However, concerns persist regarding the sustainability and resilience of these businesses, as evidenced by the high failure rate of small businesses. South Africa experiences the highest failure rate among SMMEs with 70% to 80% of such businesses failing within 5 years of their establishment. This situation significantly impacts Gauteng, given that the province houses most of the small businesses in the country. Consequently, there is a pressing need for targeted support and development for SMMEs across all economic sectors.

4. POLICY AND PROGRAMMES ALIGNMENT

The consideration of policy alignment will enhance the effectiveness of the sector and its interventions in macro, national, provincial, local, and regional economic and social development plans, and strategies.

4.1 UNESCO Framework for Cultural Statistics

The UNESCO model of the Cultural and Creative Industries (2009) aims to address three prevalent dichotomies in policy frameworks and discussion: the dichotomy of scope (the social versus economic valuation of worth), the dichotomy of government (state, commercial, and community modes of provision), and the dichotomy of institutionalisation (formal and industrial versus informal and grassroots modes). To address these issues, the model employs the term 'domain' rather than 'industry' for classification purposes. This choice reflects a broader understanding of the sector, encompassing not only formal economic activities but also non-formal, amateur, and non-market-related activities. The FCS cultural domains represent a cohesive set of culturally productive industries, activities, and practices, which are categorised under the following headings:

- Cultural and Natural Heritage.
- Performance and Celebration.
- Visual Arts and Crafts.
- Books and Press.
- Audio-visual and Interactive Media.

- Design and Creative Services.
- Intangible Cultural Heritage (transversal domain).

These domains are cultural. They also represent the minimum set of core cultural domains for which UNESCO would encourage countries to collect comparative data. This allows for a specification of the breadth of the cultural sector but also gives a sense of its structure.

4.2 White Paper on Arts Culture and Heritage

The White Paper on Arts Culture and Heritage aims to achieve the following policy objectives, among others:

- To harness art, culture, and heritage as creative, innovative, educational social development practices with the economic capacities for transforming South Africa into an inclusive society based on actual equality.
- To reconfigure the existing arts, culture and heritage sector and the policies underpinning it to eliminate duplication and overlaps for the optimal performance of the sector about current social, educational, and economic policies.

These objectives frame the intention to effectively contribute to building a cohesive and united society in which everyone has access to arts, culture and heritage, resources, facilities, and opportunities.

4.3 National Arts Council Act

The National Arts Council's objectives are:

- To provide, and encourage the provision of, opportunities for persons to practice the arts.
- To promote the appreciation, understanding and enjoyment of the arts.
- To promote the general application of the arts in the community.
- To foster the expression of a national identity and consciousness through the arts.
- To uphold and promote the right of any person to freedom in the practice of the arts.
- To give the historically disadvantaged additional help and resources required to give them greater access to the arts.
- To address historical imbalances in the provision of infrastructure for the promotion of the arts.
- To promote and facilitate national and international liaison between individuals and institutions with respect to the arts.
- To develop and promote the arts and to encourage excellence concerning these.

5. THE PROFILE OF THE CULTURAL & CREATIVE INDUSTRY

Of all the cultural disciplines, Gauteng contributes the most, making up over R29 billion (2,78%) of the state's GDP. Design and creative services (1,22%), books and press (0,60%), multi-disciplinary cultural education (0,33%), and audiovisual and interactive media (0,26%) are the domains contributing the most. After KwaZulu-Natal and the Western Cape, Gauteng is the biggest employer of creative professionals in the country. The industries that generate the most jobs are those in the design and creative services domain, books and press, audiovisual and interactive media, and cross-cutting cultural education.

5.1 Creative Economy's Employment Contribution

According to estimates, the creative sector in South Africa employed around 2.2 million people in the third quarter of 2023. With roughly 34.6% of all creative sector jobs in the country, Gauteng province was predicted to be the biggest employer in the industry when compared to other provinces. Western Cape (19%) and KwaZulu Natal (20%) came in second and third, respectively. Following the lockdown, employment in South Africa's creative sector expanded by approximately 166,483 people, or 8% between 2021: Q1 and 2023: Q3. KwaZulu Natal saw the biggest rise during that time, roughly 85,461, followed by Gauteng with 48,112 and Western Cape with 12,027.

Table 1: Employment in the Cultural and Creative Industries (Top 3 provinces)

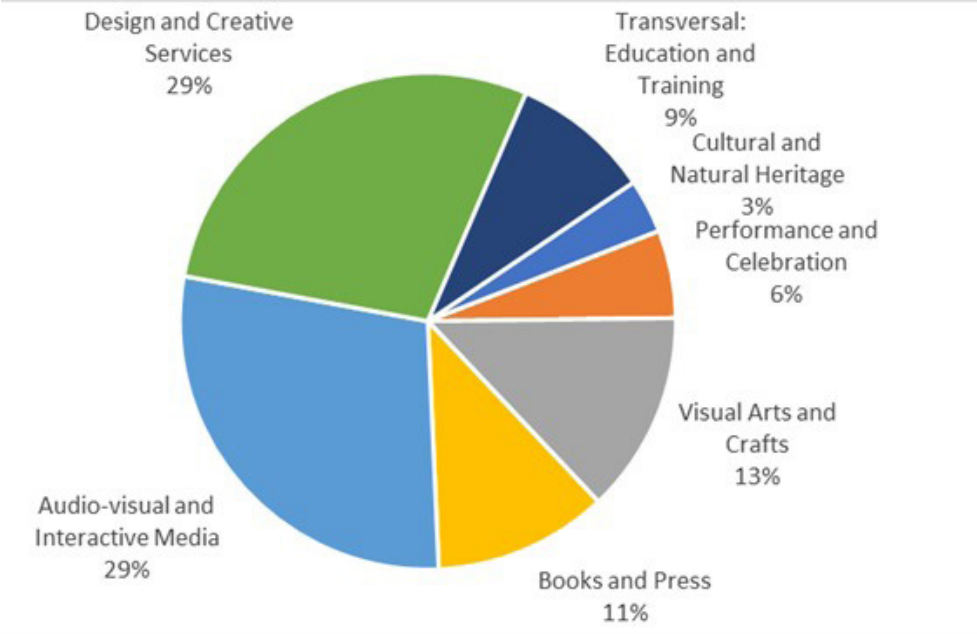
Province	2022: Q1	2022: Q2	2022: Q3	2022: Q4	2023: Q1	2023: Q2	2023: Q3
SA	1.838,556	1.967,753	1.960 121	1 968 675	2.171, 867	2.078,248	2.241,725
GP	752,538	751,081	768,860	729,153	776,960	751,517	776,266
WC	321,167	399,293	378,140	380,986	414,475	379,026	429,095
KZN	299,056	356,799	319,144	337,162	392,632	397,708	453,648

Source: SA Cultural Observatory, 2021 and Stats SA (Nesstar), 2023

5.2 Gauteng's creative domains

In 2020, Gauteng contributed 36.3% to South Africa's Cultural and Creative Industries (CCI) GDP. This is the highest contribution from any province.

Figure 1. The contribution of each domain to Gauteng's GVA



Source: SACO (2021)

With a Gross Value Added (GVA) of R1 377.4 billion (consistent with 2015 prices), Gauteng contributed approximately 34.8% to South Africa's GVA. Gauteng's CCI contribution was R60 billion (consistent with 2015 prices) to the province's GVA. This represented 4.5% of the province's total GVA in 2020 (SACO 2021). Although it is technically feasible to derive indices for each of these domains based

on survey estimates, disaggregated Creative Economy data at the subnational levels presents challenges. Consequently, the indices are calculated using aggregated Creative Economy data for Gauteng and the five regions.

5.3 Regional Creative Clusters

- Cultural and Natural Heritage: museums (physical & virtual), archaeological and historical places, cultural landscapes, and natural heritage.
- Performance and celebration: performing arts, music (live and recorded), festivals, fairs, and feasts.
- Visual Arts and Crafts: fine arts, photography, and crafts.
- Books and Press: books, newspapers and magazines, other printed matter, libraries (physical & virtual), book fairs.
- Audio-visual and Interactive Media: film and video, TV, and radio (including internet live streaming), internet podcasting, video games (online and offline).
- Design and Creative Services: fashion design, interior design, graphic design, landscape design, architectural services, and advertising services.
- Transversal cultural education: including formal and informal education and training at primary, higher and tertiary levels

Table 2: Regional distribution of creative domains (%)

Clusters	Johannesburg	Tshwane	Ekurhuleni
Cultural and National Heritage	2,9	1,4	1,6
Performance and Celebration	8,5	4,3	4,5
Visual Arts and Crafts	7,3	19,4	14,7
Books and Press	28,0	16,5	12,7
Audiovisual and Interactive Media	12,5	12,2	13,5
Design and Creative Services	29,8	41,1	47,6
Transversal Cultural Education	11,0	4,9	5,4

Source: SACO (2020)

6. ISSUES AND CHALLENGES AFFECTING CREATIVE ECONOMY

The impact of the pandemic on the global creative economy has been severe. A recent study by UNESCO estimated that the sector's GVA contracted by USD 750 billion, representing a 1% decrease in nominal global GDP in 2019. Additionally, it is estimated that over ten million jobs were lost within the sector. In South Africa, research conducted by the South African Cultural Observatory (SACO) in May 2020 indicated similar effects, which have persisted into 2021 due to the ongoing impact of various waves of the pandemic on the sector's operations.

It was estimated that the impact of constrained operations of the Cultural and Creative Industries (CI) in the country would exceed R99 billion. The study revealed that domains reliant on audience interaction were the most severely affected, though all domains experienced some degree of impact. Subsequent research published by SACO in November 2020, conducted by IKS Cultural Consulting, documented an even greater impact on live music. Many musicians are compelled to sell equipment to meet financial needs. Over half of the sample expressed a negative outlook on their future in music and overall, online activities were insufficiently profitable to sustain artists or related businesses.
In October 2021, SACO released an updated impact study on the impact of COVID-19 on the creative industries in South Africa. The 2020 study found that only 19% of survey respondents could maintain 60% of their business operations, whereas in 2021, this figure increased to 36%. However, this recovery was observed primarily in established enterprises and organisations, not in informal businesses and freelancers. Consistent with the 2020 findings, the most vulnerable domains continued to be performance and celebration, audio-visual & interactive media, and visual arts and crafts. In 2021, respondents reported an increased adoption of technology and online work, although few had managed to generate significant income from these activities.

Despite the limited revenue streams from online work, 66% of respondents indicated their intention to continue pursuing business activities., They noted, however, that the demand for online work was hampered by limited access to the internet and the necessary devices for creating online content. While Covid-19 has been a major influence on work and life within the creative economy, several longer-term changes have also been recorded.

- Growing distrust between artists, government departments and institutions.
- Growing dissent amongst “organised formations” regarding legitimacy and credibility.
- Long-term decline of audiences, particularly for the performance and celebration domain, and a significant increase in the production and consumption of locally produced films and television products.
- Significant decline in the quality and availability of community facilities.
- Substantive over-subscription of available grant funding resources and the lack of alternative financing mechanisms for the arts.
- Ongoing disruption in value chains and distribution platforms due to the rapid adoption of digital technology, particularly in the audio-visual sub-sector.

7. HISTORIC GAUTENG CCI INITIATIVES

In 2005, the Gauteng Executive Council approved the Gauteng Creative Industries Development Framework (CIDF). The Framework was purposed to:

- Develop creative industries to maximise their contribution to the economy, community development and urban regeneration.
- Provide a coordinating framework for investment and implementation in the province.

The Framework identified a range of sector-specific initiatives that are critical in achieving the objective of developing creative industries to maximise their contribution to the economy, community development and urban regeneration. Over the years, the landscape of the creative industries was changed by both international and local factors which included the rapid adoption of disruptive technologies, consumer behaviour and the Covid-19 pandemic. It was based on these bases that the framework had to be reviewed. In 2019, the Gauteng Premier and the National Minister for Arts

and Culture led an Indaba as part of gathering the inputs relevant for the growth and repositioning the sector as it was adopted as part of the ten growth sectors in Gauteng, it was out of this Indaba where a resolution to adopt a new Strategy was taken.

A discussion document outlining key themes from the research studies was drafted and circulated through various social media platforms for input. Concurrently, stakeholder consultations were held in the five corridors during October 2022. All these initiatives led to the drafting and approval of the Gauteng Province Cultural & Creative Industries Growth Strategy 2023-2030 in December 2023 by the Gauteng Executive Council. The primary objectives of the Strategy are summarised as follows:

- Infrastructure development and maintenance.
- Training and development through well-equipped township Centres of Excellence.
- Digital skills focusing on digital literacy and technology.
- Audience development by identifying new audiences and expansion of local and international market opportunities.
- Establishing structures which will support the implementation the industry ad drive continued and sustainable stakeholder collaborations.

Therefore, the envisaged CCI Indaba will assist GPG and its social partners in achieving these objectives whilst improving the implementation of the adopted strategy to resuscitate the fragile CCI sector in the province.

8. CONSTRAINTS TO GROWTH FACING SMMES IN CCI

The prevalence of SMMEs within the creative sector highlights the necessity for policymakers to address size-related constraints. SMMEs in creative industries face similar challenges to those encountered by small enterprises in other economic sectors. Chief among these challenges is the difficulty in accessing finance to develop creative projects. Transforming creative ideas into tangible goods or services is typically capital-intensive, with substantial costs associated with technological inputs and other professional services. Access to finance remains a significant barrier for creative entrepreneurs seeking to bring their ideas to fruition. Larger enterprises often provide one source of finance to SMMEs. Creative SMMEs tend to thrive in economies where the financial sector is well-suited to their needs and where creative industries are officially recognised. However, in many developing countries, SMMEs face disadvantages due to the nascent status of creative industries and the traditionally risk-averse nature of financial institutions.

The SMMEs have been identified as a crucial element in fostering inclusive growth and development in South Africa. The National Development Plan underscores the significance of these businesses for job creation, innovation, and competitiveness, with the objective that SMMEs will generate 90% of new jobs in South Africa by 2030. The successful establishment and expansion of these enterprises may provide a sustainable mechanism for increasing the wages of individuals at the lower end of the wage distribution and reducing levels of inequality. It is acknowledged that in South Africa, most small businesses are situated at the lower end of the enterprise development spectrum and encounter numerous challenges, including:

- Lack of access to finance and poor profitability, which account for the main reasons for business discontinuation.

- Inadequate collateral on the part of the entrepreneur, a lack of credit history, inability to produce an acceptable business plan according to financial institutions, poor market research, and the absence of a viable business idea.
- Lack of access to vibrant markets, which is one of the fundamental requirements for securing funding and mentorship at early stages. Notably, small businesses in rural areas are at a disadvantage compared to their urban counterparts.
- Inadequate access to ICT and communication infrastructure, utilities, transport, land, or space at affordable prices, which are essential for supporting new businesses.
- Inadequate support for building Research and Development (R&D) capacity among SMMEs, which could help in transforming ideas into sustainable businesses.
- Lower levels of entrepreneurship and low skills level in enterprise, financial, and business management by SMMEs and cooperatives.

The internal barriers are those within the enterprise, associated with organisational resources and capabilities. External barriers arise from the environment in which the firm operates.

9. STRENGTHS, WEAKNESSES, OPPORTUNITIES, AND THREATS ANALYSIS

The Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis evaluates both internal and external factors that impact the operation and growth of a firm. Conducting a SWOT analysis of the construction industry will enable stakeholders to comprehend the state of the market and identify the numerous opportunities available.

Table 3: SWOT Analysis.

Strengths	Weaknesses
• Deep and diverse culture, arts and heritage create a unique identity in the international marketplace through a fusion of genres. • Strong industrial and enterprise base exists across the cultural creative industries value chain, from creation to production, distribution, and broadcasting. • There is a wide range of institutions and organisations representing most creative sectors, including well-established collecting societies that generate more revenue than any other African collecting societies. • Additionally, there is a strong and growing independent CI sector with an increasing number of small to medium-sized businesses across the value chain.	• The talent in South Africa's creative industries comes from all over the country, but the industry is concentrated in the three major cities: Johannesburg, Durban, and Cape Town. The majority of the enterprises, facilities, infrastructure, and industry organisations are based in Gauteng. There is a critical lack of qualitative and quantitative information about the state of the CI across the different Provinces, with most research focused on Gauteng, Western Cape, and KwaZulu-Natal. • Export incentives primarily focus on supporting the export of goods rather than services, which makes it challenging to promote the export of CI as a service.

Strengths	Weaknesses
	• Limited bandwidth and internet access are hindering the growth of digital sales. In addition to limited research and knowledge generation in the South African creative industry. • There is limited funding options tailored to the needs of creative industries, including equipment and infrastructure, promotion, distribution, and marketing expenses. • Limited access for independent local creative industries products to specialised production and post-production infrastructure, performance opportunities, broadcast, and retail distribution networks. • Many Creative industry entrepreneurs struggle with managing their enterprises and monetising their IP due to a lack of formal business and IP training. • Creative industries are male-dominated, especially in high-value areas. There's a lack of professionalism in contracts, and creative enterprises often struggle to access support from professionals like lawyers and managers. • While copyright protection policies have been developed, the lack of institutional capacity to enforce them and collect payments often limits their effectiveness. • Stakeholder and coordinating bodies are institutionally weak and operate within limited and partial frameworks. Others lacking the legitimacy to serve as representatives of the creative industries.
Opportunities	**Threats**
• Digital Migration and the emergence of new distribution channels requiring vast amounts of content and products. • The rapid growth of online distribution methods and increased usage and ownership of various digital audio platforms, including online radio, iPod/MP3 players, and mobile phones, which have high penetration in the population.	• Access to international markets for creative industries services is constrained by excessive costs of travel, accommodation, visas, and work permits. • A high percentage of creative industries products released and distributed in South Africa consists of imported material with shelf space in wholesale and retail platforms geared towards this imported content thus extending and entrenching the market domination of imported content.

Opportunities	Threats
• Growing demand for South African creative industries' products and services in international markets • Competitiveness in hosting global events • Multi-cultural and trans-regional festivals have an auspicious role in developing new markets for local and regional artists and their products across the region.	• High distribution costs and the profit-sharing formula between distributors and producers typically favour the distributors and shift most of the risks to the producers. This makes it especially challenging for independent and previously disadvantaged producers to access these distribution networks. • Piracy, in both physical and digital forms, as well as copyright infringement and protection, continues to be a major concern in the industry. Royalty collection, both through organisations and independently, is challenging and not as effective as it could be. This lack of income from copyright collection directly impacts artistic creation and production. The lack of a social security framework for artists makes their financial security highly precarious. On one hand, their share of revenue is limited, and on the other, they are considered independent contractors, which excludes them from accessing the rights and benefits afforded by the South African Labour Relations Act.

10. RECOMMENDED STRATEGIC INTERVENTIONS

Programme	Objective	Interventions
Establishment of an Integrated Database	Develop an Internet-based integrated database for profiling SMMEs for the provision of support and tracking progress	• Develop a Gauteng database in support and provision of various Cultural and Creative Industries Programmes
Supporting CCI Hubs in townships (Transwerke Model)	To enable the creation, of innovative products, and services as well as developing a cross-cutting programme within those spaces of entrepreneur, technology, and business development	• Infrastructure development support (through GSACR MoA) • Facilitating skills development and training (including tech & innovation) • Facilitating access to funding • Market access platforms and distribution channels
Gauteng CCI Indaba	To identify methods of accelerating the implementation of GPCCI growth strategy	• Conduct stakeholder consultations • Convene an industry-wide Indaba event to facilitate the establishment of a collaborative approach amongst public and private sector institutions • Develop a programme of action for the implementation of the Indaba resolutions
Supporting the Cultural and Creative Industries Events	To create economic growth and employment opportunities and ultimately lead to a reduction in unemployment and poverty levels in Gauteng province.	• Celebrate all of Gauteng, drive trade, investment, and knowledge to the province as well as attract visitors to and around Gauteng province. • Market access for small business development
Development	To build strong enterprises and to gain competitive advantage in increasingly global, competitive, and dynamic markets	The programme will aim to encourage and ensure high quality and relevant full-time, part-time as well as short-term training to creative enterprises and individuals across Gauteng by: • Support for the development of relevant and current creative industry information and course materials

11. CONCLUSION

The GDED Creative Sector Plan marks a significant step toward transforming Gauteng into a leading hub for Cultural And Creative Industries (CCI). This strategic initiative aims to foster a dynamic and sustainable creative economy by addressing key challenges, including funding, infrastructure, and market access. By investing in CCI hubs, supporting events, and developing an integrated database, the plan seeks to create a vibrant ecosystem where local artists, creatives, and cultural entrepreneurs can thrive.

The plan emphasises skills development to ensure a competitive creative workforce, enhances access to finance and investment, and supports innovation and product development. By facilitating access to technology and increasing market access, Gauteng will bolster its position as a prominent cultural destination, driving economic growth, employment, and tourism. Furthermore, the plan promotes inclusion and transformation within the industry, ensuring that it reflects South Africa's diverse demographic profile.

The Creative Sector Plan embodies a comprehensive approach to unlocking Gauteng's creative potential. By addressing critical areas such as infrastructure, finance, and skills development, the plan aims to build a robust and inclusive creative economy that enhances Gauteng's cultural landscape while driving economic progress and celebrating its unique heritage.

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GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

2024

Financial Services

SECTOR PLANS



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1. INTRODUCTION

Financial services are a general term used to refer to a wide range of products and services offered by the finance industry, including digital banking technologies, payments, insurance, and money management.

Financial services comprise of many different parties and moving components, including credit card issuers, processors, legacy banks, and newer competitors. Additionally, financial institutions and startups are improving their technology and growing their remote services because of the growing digitisation of financial activity, particularly when consumers choose to handle their accounts from home considering the growing work from home and remote services.

The financial services sector plays a crucial role in enabling growth, job creation, building of infrastructure, and the functioning of businesses. This sector allows people and businesses to make day-to-day transactions, save and preserve wealth, and insure against disasters or unforeseen events and access credit. However, not everyone benefits from this sector.

Though transformation has been slow, and firms have been accused of high prices and a lack of transparency of costs. Despite this, the financial sector has the potential to play a larger role in Gauteng Provincial Government's (GPG) long-term plan of "Growing Gauteng together 2030", through its ability to attract foreign investment into Gauteng and generate investment into Africa. Furthermore, a strong financial sector is also necessary to support other sectors identified as priority to GPG, support SMEs and black-owned business to transform the economy and stimulate the township economy. Additionally, the sector has been one of the resilient drivers of economic and employment growth in Gauteng post the 2008/09 financial crises and covid-19 pandemic.

Gauteng Provincial Government has identified the financial services sector as one of the priority sectors that can enhance Gauteng and South Africa's economic growth into a higher trajectory. Despite the sector being one of the largest contributors to the Gauteng's employment level and economic growth, the sector is also a significant supporter to other sectors, especially primary and secondary sectors, through its ability to grant these sectors access to funding which is needed for capital investment. Therefore, it is important for GPG to ensure that there are enough financial providers that are willing to cater for higher risks individuals and businesses that are not catered for by traditional financial institutions. With regards to financial services, GPG should focus on either establishing/ supporting/partnering with institutions/platforms that cater for individuals and businesses that are excluded from the traditional financial system.

2. SOUTH AFRICA'S FINANCIAL SECTOR

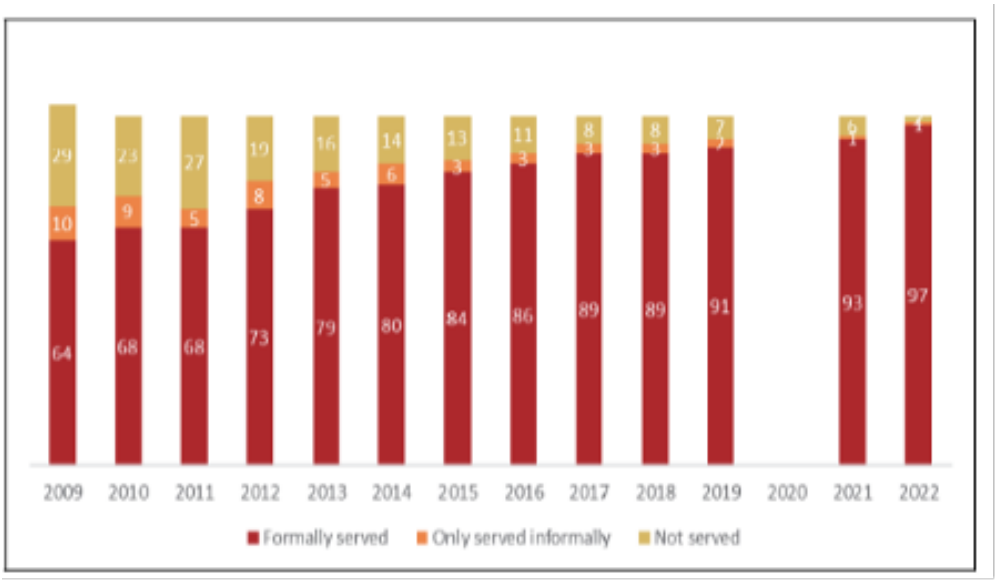
The financial industry in South Africa is vast and highly developed, with both banking and non-banking financial organisations. In March 2022 the banking industry had gross asset value of R6.8 trillion, representing a 23.5% contribution to GDP in 2021. Higher economic activity in finance, which contributed 0.9% of a percentage point based on growth of 3.9%, was the main driver of the yearly increase in real GDP of 2.0% in 2022 (Statistics South Africa, 2023).

The five biggest banks still control 90% of the sector's total assets, indicating that the industry is still very consolidated. The banking industry is undergoing fast change with the emergence of technology-driven financial services, the influx of new banks, and the expansion of credit availability from other lenders. As a result, the five prominent banks are compelled to focus more on attracting lower-income consumers by delivering creative products and boosting the number of their customers. Due to competition from recently founded banks like Discovery Bank, Bank Zero, and TymeDigital, which seek to upend the industry, major banks are being forced to step up their efforts to modernise

their technological platforms to meet the needs of their clientele.

After a decade of significant progress, financial inclusion has increased significantly: in 2021, over 97% of adult South Africans used a formal financial product or service, up from just 64% in 2009.

Figure 1: Financial inclusion perspective in South Africa



Source: FinScope SA surveys (2019)

This progress has been facilitated by the following factors:

- The presence of a firmly developed banking sector and an infrastructure supporting financial services in South Africa.
- Using cutting-edge technology to deliver financial services and goods
- An emphasis on consumer literacy.
- A new method of providing social subsidies to recipients that switch from utilising cash to bank accounts.

It is crucial to include the uptake and utilisation of financial goods and services by both people and SMMEs when assessing development, in addition to their accessibility.

Main issues highlighted in the financial inclusion situational analysis for South Africa are the following:

- Entry-level bank accounts are often used for nothing more than a monthly cash distribution service, with the account acting more like a cash-in/cash-out “mailbox”.
- The use of the national payment network is inadequate.
- Too many times, clients are given credit extensions that don’t yield results.
- People have a low inclination to save in the official financial sector.

People’s use of insurance products indicates that funeral plans are somewhat overused and that there aren’t enough asset-insurance options available for the lower-income market.
The primary causes of the poor adoption and utilisation of low-value digital payments for low-income people and SMMEs may include product design, affordability, and the limits of the distribution network. The benefits of financial inclusion may be further undermined by unethical market behaviours, which also put disadvantaged people and SMMEs in greater danger. In general, when it comes to the availability and utilisation of financial services, SMMEs in South Africa fall well short of people.

3. TRENDS IN SOUTH AFRICA'S FINANCIAL SECTOR

South Africa's financial sector is one of the most advanced and diversified in Africa, encompassing banking, insurance, asset management, capital markets, and fintech. The sector is critical to the country's economic stability and growth, providing the infrastructure and services necessary to facilitate trade, investment, and personal finance.

3.1 Access to financial services

Access to financial products and services refers to the acquisition or potential acquisition of financial products and services and includes both the physical and electronic reach of service provisioning (National Treasury, 2023). Competition and diversification among providers in the regulated financial sector are intimately linked to access. Therefore, enhancing accessibility necessitates ongoing evaluation and elimination of needless obstacles to service delivery for SMMEs and the low-income market, some of which may be obstacles to provider and distribution base diversity.

The availability of market-oriented financial products and services is typically positively correlated with a diversified financial sector. Although the industry is still somewhat consolidated, the sophisticated and fundamentally stable banking sector offers a strong foundation for financial inclusion. Over the previous three years, the number of banks has remained consistent, with the five largest banks controlling 90% of the market in terms of assets (Prudential Authority Annual Report (2021). Although these banks have branches all over the nation, most of them are in urban and semi-urban areas.

As of the end of 2021, there were 69 registered life insurers and 70 registered non-life insurers in South Africa's official insurance market, making it a comparatively large and diverse industry. Funeral cover, endowment policies, savings plans, life insurance plans, and short-term insurance products like home and auto insurance are just a few of the many items they provide. Since it is simpler to register as a credit provider than to obtain a banking or insurance license, there are many more registered credit providers in South Africa than there are other financial services companies. Nonetheless, the banking industry continues to dominate South Africa's credit market in terms of total gross debtor's book. The high frequency of unregistered credit providers, or "mashonisas," who target South Africans who are most economically vulnerable and frequently use deceptive lending and debt collection tactics, is cause for concern.

3.2 The function of digital vs physical infrastructure.

The physical presence, geographic reach, and accessibility of digital channels that facilitate interoperable transactions are all critical components in the attainment of financial inclusion. Over the past ten years, access to financial products and services, both digitally and physically, has greatly improved. The pace of growth of "main street" branches has decelerated, and there has been minimal utilisation of non-traditional infrastructure, such as providing financial services via retailer branch networks. Although South Africa's physical reach and technological usage have enhanced financial access, there is still much room for growth when compared to other developing nations.

3.3 Adoption and utilisation of financial services

In terms of overall product take-up, South Africa compares favorably to other key growing economies such as Brazil, Russia, India, and China, among others (South Africa Country Report Annex II, 2017), In comparison to financial development, its level of financial inclusion is rather low. Due to South Africa's dual economy, disparities in bank account ownership are prominent. For instance, 80% of the wealthiest quintile and 60% of the least wealthy quintile, respectively, have bank accounts. Compared to the acquisition of all other financial products, the percentage of South Africans holding a transaction account surged from 67% in 2012 to 82% in 2022. Financial inclusion may be facilitated by the adoption of transaction accounts, especially bank accounts. One way to think of it is as an entryway to other financial products and services, as it may make a variety of other financial products

and services easier to use. According to the FinScope's Consumer Survey South Africa (2019) However, just 31% of South Africans who have bank accounts use their accounts more than three times a month, with entry-level banking accounts often limited to a basic monthly cash distribution service (cash-in/cash-out).

3.4 Insurance

The percentage of adults who use insurance products has increased from 48% in 2012 to 52% in 2022, following a decline in the use of insurance products between 2009 and 2012, primarily because of a decline in disposable income due to the global economic crisis. In 2022, just 39% of people who had insurance had non-funeral insurance. With a 30% penetration rate, informal insurance is still a thriving industry for the typical South African adult. It seems probable that the percentage of the population with insurance will continue to be low if consumer household income is restricted.

3.5 Remittances

Remittances are widely used in South Africa, both domestically (moving money inside the nation) and internationally (moving money beyond the nation). According to the 2019 FinScope Consumer Survey South Africa, consumers were sending money through both official and informal routes. Of those who use remittance services, 48% send money through banks, 55% through merchants, and 35% through unofficial means. Among the 16 members of the SADC region, South Africa accounted for almost 51% of the GDP in 2017 (Economic Survey, 2017). Almost 2.9 million migrants are anticipated to be living in the country.

South Africa continues to be the region's top recipient of migrant workers looking for better prospects. All rights are granted to refugees in South Africa, apart from voting. Nevertheless, refugees still encounter difficulties when attempting to use official financial services. A Major obstacle in this market segment is inexperience with financial services providers (FSPs). Financial institutions are ignorant of the rights, credit risk, and livelihood options available to refugees, as well as the viability of serving them. The ability to obtain microcredit loans is necessary for businesses owned or operated by refugees to grow. In South Africa, these loans are extremely scarce, if anything at all.

3.6 Fintech

Fintech development is still in its early stages, but it has already been encouraged by businesses and people looking for innovative financial services and solutions to save, pay, borrow, hold value, and insure against everyday hazards. To benefit all South Africans, the government has adopted a pro-innovation posture to date. Agencies are collaborating to create unified approaches to fintech and to make clear the regulatory position on new goods and services. Representatives from the National Treasury, South African Reserve Bank, Financial Sector Conduct Authority, National Credit Regulator, South African Revenue Service, and Financial Intelligence Center founded the intergovernmental fintech working group (IFWG) in 2016. Furthermore, managing consumer risks in digital financial services will be the top goal of the Conduct of Financial Institutions (COFI) Bill to maintain public confidence in the financial industry. The COFI Bill is flexible, prioritising fair customer treatment while providing provisions for a helpful and appropriate approach to fintech entrants.

3.7 Quality of Financial products and services

The results for customers across all service providing phases (from marketing to post-sales) are related to the quality dimension of financial inclusion. Within this context, quality encompasses matters related to financial consumer protection and market conduct. These include basic elements like the suitability and appropriateness of the product or service, affordability, equity, transparency, and the availability of efficient redress mechanisms. Given their vulnerability, the low-income market segment and SMMEs are the main emphasis, even if these factors apply to all current and future users of financial products and services. When evaluating the quality of financial products and services, affordability—particularly the entrance expenses for obtaining them is a crucial factor. Low-

income earners and SMMEs will not be able to acquire services if they are readily available yet the entrance cost to the end-user is too expensive. According to a World Bank assessment on behalf of the National Treasury of the retail banking sector in South Africa, bank accounts for low-income workers became unaffordable the more they utilised the physical rather than the digital infrastructure.

3.8 Financial literacy

To provide sustained and effective financial inclusion, financial education is essential because it gives people and entrepreneurs the information, understanding, confidence, and skills they need to make wise financial decisions and take appropriate action for their situation. Consequently, raising the level of financial literacy is necessary to improve the way that current consumers use products and services as well as to expand financial inclusion to those who are underserved or uninsured. A significant number of South Africans have extremely poor levels of financial literacy.

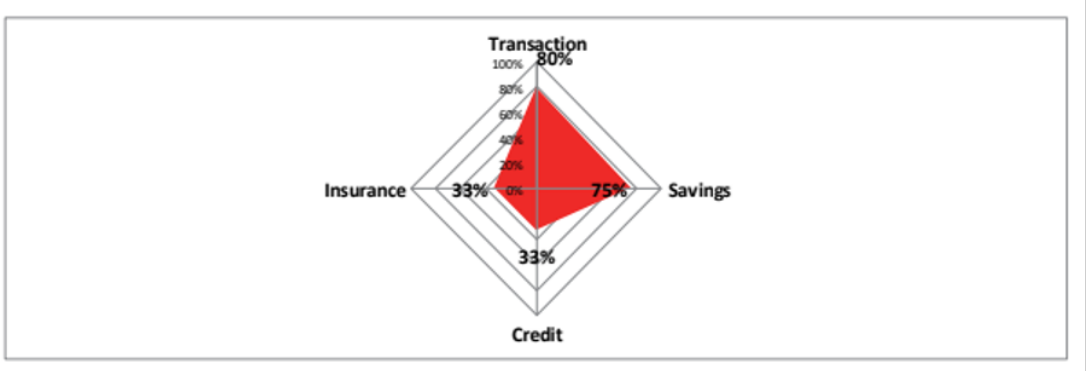
3.9 SMME Financial inclusion

SMMEs have inadequate support, with most of their financial requirements being met by the owners personally or outside of the established banking industry. 80% of SMMEs are banked, according to the FinScope 2020 poll. Of those that are, only 30% have a business bank account, with the remaining SMMEs using the owner's personal account as a dual account for both personal and company use. 18% of micro enterprises, most of which are informal remain outside the official banking sector even when they utilise personal accounts for business reasons.

One of the main factors fueling this segment's growth is the limited availability of formal finance; in 2020, 33% of SMMEs had a line of credit from a formal financial institution, up from 9% in 2016. This puts South Africa well behind its rivals in emerging markets (South Africa Country Report, 2017). As of March 2021, the main retail banks' total loan book percentage allocated to SMME lending accounted for approximately 12%. A 2018 BASA-commissioned paper titled "Hurdles faced by financial institutions in SMME financing" states that banks' considerable risk aversion against SMMEs, which they view as riskier and less profitable is the primary cause of their poor lending to SMMEs.

The International Monitory Fund (IMF) has noted that South Africa's banking industry prioritises providing services to the affluent. Most business owners that own insurance fall into the medium business category, while 95% of micro-enterprises are not included in the formal insurance sector. Only one in three business owners have an insurance product that can be used for commercial reasons. Generally, workers' compensation insurance led the way in company insurance penetration, followed by personal accident insurance. Conflicting personal and business interests arise because most SMME business transactions still happen in the owners' individual capacities. This calls for the creation of suitable goods and services for SMMEs as well as an awareness of the demands of this market.

Figure 2: The primary financial services deployed by SMME's.



Source: FinScope MSME Survey South Africa 2020.

3.9.1 Gauteng State Owned Bank

The establishment of a state-owned bank in Gauteng has been a topic of discussion as part of broader efforts by the provincial government to increase access to financial services, stimulate economic growth, and support developmental objectives within the province. The concept aligns with the provincial government's commitment to economic transformation, financial inclusion, and reducing inequality.

- Rationale Behind the Establishment

Financial Inclusion and Economic Development

Access to Finance: A state-owned bank could provide greater access to financial services for individuals and businesses that are currently underserved by commercial banks. This includes small and medium enterprises (SMEs), informal businesses, and low-income households.

Support for SMEs: By offering tailored financial products and services, the bank could help stimulate the growth of SMEs, which are crucial for job creation and economic development in Gauteng.
Infrastructure Financing: The bank could play a key role in financing infrastructure projects that are vital for the province's development but may not be attractive to private banks due to lower profit margins or higher risks.

- Addressing Market Failures

Targeting Marginalised Communities: The state-owned bank could focus on providing financial services in marginalised and underserved communities, where private banks may be reluctant to operate due to perceived lower profitability.

Affordable Credit: By providing more affordable credit options, the bank could help reduce the reliance on expensive and often predatory lending options that are prevalent in underserved markets.

- Economic Transformation

Promoting Broad-Based Black Economic Empowerment (BBBEE): The bank could support BBBEE initiatives by providing financial products that specifically target historically disadvantaged individuals and businesses.
Inclusive Growth: The bank could be a tool for promoting inclusive economic growth by ensuring that financial resources are directed towards sectors and communities that are critical for reducing inequality.

3.10 Climate Finance

South Africa maintains a strong commitment to the 2030 Agenda of the United Nations and sustainable development. The South African National Planning Commission (2012) states that the country's 2030 National Development Plan, which attempts to end poverty and lessen inequality, makes this clear. Sustainable Development Goal 8 (SDG 8) on employment, decent work for all, and inclusive and sustainable economic growth is covered by these principles. The nation has pledged, through its Nationally Determined Contribution (NDC), to uphold the Paris Agreement's goal of keeping the rise in world temperature to 1.5°C. Additionally, planning for climate change adaptation became more prominent in South Africa once the National Climate Change Adaptation Strategy was adopted in 2020.

3.10.1 Private Sector Climate Finance

Of the recorded annual investments, 86% (or R113 billion annually) came from private actors. 92% (or R103 billion annually) of private flows came from commercial sources; the remaining 8% (or R9 billion annually) came from "other" sources, which included corporations, NGOs, philanthropists/

donors, and families. Most of the private funding (98%) came from domestic sources. Of private flows, debt financing made up 82% (or R93 billion annually), and equity financing made up 18% (or R20 billion annually). The South African Climate Finance Landscape (2023) 64% of private sector investment went toward clean energy (around R72 billion annually).

3.10.2 Public sector climate Finance

An average of R18 billion (14%) was given annually by public actors to tracked climate funding, with DFIs accounting for 55% (or R10 billion annually) and the South African government for 33% (or R6 billion annually) of the total. Public flows of R2 billion were provided annually by international governments. A total of 79% of yearly public funding went to the clean energy sector, agriculture, forestry, fisheries, and land use, or 53% (or R10 billion annually) and 26% (or R5 billion annually), respectively. Domestic and foreign players accounted for 41% and 59% of the public finance, respectively.

3.11 Cyber security

The financial industry is a prime target for cybercriminals due to its high volume of valuable financial data and assets. To safeguard sensitive consumer information, guarantee the integrity of financial transactions, and ensure regulatory compliance, cybersecurity is essential to the financial industry's success. Financial institutions must be diligent in putting cybersecurity safeguards into place and keeping them updated since cybersecurity threats are always changing. Improper execution of this task may lead to significant monetary losses, harm to one's reputation, and legal obligations. Sustaining the integrity of financial transactions and preserving customer trust requires the banking sector to keep up its investment in cybersecurity.

3.12 Cashless society

Since cashless payments give customers the option to trade using other payment methods, they are progressively becoming a global trend. Cashless economies have several traits. First off, in a cashless economy, every transaction made by its members may be monitored and traceable. Second, since a financial institution issues and oversees the entirety of the money in circulation, cash-based financial crimes are thwarted. Finally, central banks, like the South African Reserve Bank (SARB), ought to be able to function similarly to other commercial banks and offer banking services to the public, including the ability to deposit and invest money.

According to international rankings, Sweden and Canada have two of the best cashless economies in the world. More than 95% of shoppers in Sweden make cashless purchases. In 2015, there were reportedly 400 billion cashless transactions; by 2025, that number is expected to rise to over eleven hundred billion. The use of smartphones and e-commerce, new regulations pertaining to the adoption of cashless payment services, the adoption of technological innovation both inside and outside the banking industry, and a significant rise in the number of debit and credit cards used in Asian nations are the main factors driving the use of cashless transactions (Finance Monthly, 2017).

4. LOCAL AND INTERNATIONAL FINANCIAL INCLUSION POLICY DEVELOPMENTS.

Financial inclusion policies aim to provide individuals and businesses with access to useful and affordable financial products and services that meet their needs—transactions, payments, savings, credit, and insurance—delivered responsibly and sustainably. Both locally and internationally, financial inclusion has become a priority for governments, regulatory bodies, and international organisations due to its potential to reduce poverty, promote economic growth, and foster financial stability.

4.1 International trends towards a harmonised financial inclusion policy

The Global Partnership for Financial Inclusion (GPFI) was formed as a coordinating forum by the

Leaders of the G20, who are advocating reforms to enhance an inclusive financial sector and endorsing a financial inclusion action plan (FIAP). The GPFI oversees the execution of the G20 Principles for Innovative Financial Inclusion and the FIAP by signatory nations. The World Bank, International Finance Corporation, the OECD, the Consultative Group to Assist the Poor (CGAP), the Alliance for Financial Inclusion (AFI), and other implementing partners support the Global Partnership for Financial Inclusion (GPFI).

Key actions of the FIAP

- Align the work of the GPFI with the 2030 Agenda for Sustainable Development
- Digitisation of financial products and services and identity systems to accelerate financial inclusion
- Increased attention to the importance of responsible access to, and usage of, financial products and services
- Mainstream financial inclusion goals alongside the other financial sector goals of stability, integrity, and consumer
- protection. In addition, reinforces the notion that financial inclusion and other financial sector goals are mutually supportive.

Financial inclusion has had differing degrees of success at the national level. GPFI and the Implementing partners have proven essential in tracking experiences and incorporating learnings into broad guidelines, FIAP updates, and national case studies. It is important to remember that the foundation for more prosperous nations like Brazil, Malaysia, India, etc. Kenya developed a multi-stakeholder financial inclusion plan with strong monitoring and evaluation techniques to evaluate implementation outcomes, as well as high-level political buy-in. No specific blueprint or model will meet the needs of every nation.

Due to the realities of varying infrastructure and development stages, varying political and economic agendas, and the relative strength and maturity of the financial sectors, each nation must choose its own financial inclusion plan and methods of execution. As a result, we consider pertinent national experiences and case studies to provide a policy that is especially tailored to the South African environment in this document.

4.2 Financial Inclusion Policy Pillars in South Africa

In terms of overall financial inclusion, South Africa does well when compared to other emerging nations of a similar calibre. The legacy of apartheid and the high concentration of banks in the financial sector, however, may help to explain why low-income people and SMMEs have not received enough attention, especially when it comes to the development and provision of goods and services that would adequately meet their needs. These impacts are made worse by the nation's low levels of financial knowledge and competence, which frequently result in bad financial decisions, increased susceptibility to wrongdoing, and worsening economic conditions for those who can least afford it. High bank account ownership rates, which promote financial inclusion, sometimes mask serious problems that require attention.

Individuals' use and uptake of financial products and services are not ideal in terms of amount or composition, and this has not had a long-term positive effect on financial service providers or customers. Some instances are when having a bank account does not automatically translate into more digital transactions, when savings or insurance coverage increase, and when excessive credit usage leads to excessive debt. These elements suggest that the South African financial services market needs to be reviewed, with an emphasis on improving the quality and accessibility of goods and services, such as suitability, affordability, and convenience.

Research indicates that SMMEs face even greater limitations when it comes to using and gaining access to appropriate payment, financial services and goods, as well as insurance. This limits the resilience, growth, and development of SMMEs. The NDP places a strong emphasis on the contribution that SMMEs will make to South Africa's future job and economic growth goals. The NDP predicts that by 2030, small and growing businesses will generate up to 90% of all new jobs. Nevertheless, there are signs that we are not meeting these goals, and if anything, the proportion of working-age individuals in South Africa has declined recently. The Stats SA Labour Force Surveys show that, despite no actual increase, SMMEs are doing a considerably better job of maintaining employment levels than corporates. Therefore, it is essential to create suitable financial services and products to aid the SMME industry.

The main obstacles in achieving financial inclusion in South Africa are the insufficiency of acceptable, reasonable, and readily available financial goods and services, as well as the general lack of awareness or insufficient knowledge of these products among a sizable segment of the populace. The problems that have been discovered must be solved with a carefully thought-out, comprehensive solution that considers the dynamics covered in this chapter. Furthermore, action needs to be made to rectify the structural flaws identified, particularly as they pertain to the highly concentrated banking industry, which has a low representation of black South Africans. The government plans to use a supporting pillar in addition to two strategic core policy pillars to solve these issues:

- Pillar one: is to increase personal financial inclusion. Enhance the newly included and underserved groups' beneficial usage of financial products and services and encourage the inclusion of those who are completely excluded.
- Pillar two: Provide SMMEs with expanded access to banking services. Encourage SMMEs to use and have better access to high-quality financial products and services.
- Pillar three: enhancing the supporting infrastructure by utilising a more varied provider and distribution network. Encourage competition and supplier base diversification to fortify the enabling framework and facilitate real progress in Pillars One and Two.

5. SWOT ANALYSIS FINANCIAL INCLUSION

Table 1: SWOT Analysis

Strengths	Weaknesses
• Availability of financial institutions, both banks and non-banks • Easy access to financial institutions and easy payment system • Diversity of products offered by financial institutions • Availability of internet networks or mobile banking services	• Lack of education and knowledge of banking access • Credit interest is still considered high. • Administrative requirements are still considered complicated for informal or small entrepreneurs. • Lack of training and business assistance

Opportunities	Threats
• Government programs in conducting training, coaching, and mentoring for SMMEs. • Market expansion with internet technology (fintech)	• Low level of entrepreneurs' financial literacy • The existence of the informal sector such as money lenders is a big threat to financial inclusion.

6. INDUSTRY DEVELOPMENT PLANS

Taking into consideration the trends, weaknesses and threats in the financial services sector the following projects are being proposed to help advance the financial services industry and promote financial inclusion.

6.1 Proposed sector plans

Table 2: Proposed Sector Plans

PROJECT	PROJECT DESCRIPTION	RATIONALE
Financial Services education platform	Financial management masterclass which will utilise the core capabilities and extensive industry knowledge of financial industry professionals, the master class will provide SMEs and individuals with effective, useful, and pertinent experiential learning solutions.	The goal of this intensive session is to help small and medium-sized business owners improve their financial management skills. To increase the business's resilience, it will focus on critical areas including obtaining loan and equity funding and freeing up capital. Along with successful SME business owners and CFOs with SME expertise, this program will also include a variety of panel discussions and fireside chats with seasoned practitioners from banking and financial institutions. The key objectives are: • Increase the financial management and financial literacy of SME owners and business leaders. • Help small business owners and leaders understand how to improve the financial standing of their organisations.

PROJECT	PROJECT DESCRIP-TION	RATIONALE
		• Increase knowledge of the several ways that small business owners and executives can obtain funding for their requirements.
Insurance fund for SMMES	Insurance that is inexpensive, easy to comprehend, and intended to shield small enterprises from unanticipated circumstances that could result in financial loss. Providing cover for businesses, from car washes to funeral parlours, hair salons and spaza shops, which are usually under-insured or not insured at all as they are seen as high risk.	• Any business, regardless of size from a spaza store to a multinational corporation, needs business insurance. • Unfortunately, a lot of smaller companies do not realise how important business insurance is until it's too late. • Following catastrophic occurrences like the April 2022 KwaZulu-Natal floods or the July 2021 widespread theft, story after story revealed the heartbreaking tales of entrepreneurs forced to close their doors due to inadequate or nonexistent insurance. • The following categories are most likely to include businesses that operate in the informal sector: It is estimated that 67% of South African township-based firms lack insurance, and an additional 15% are not insurable according to conventional criteria. • This makes underinsurance a significant problem for the business community in South Africa, particularly because SMEs account for 98% of all firms in the nation.

PROJECT	PROJECT DESCRIPTION	RATIONALE
FINTECH solutions for SMMES	Financial innovation shark tank Through a monthly pitch session, a financial forum featuring innovative FinTechs will assist in introducing its members to various technology and business opportunities.	• The platform will encourage cooperation and partnerships between DFI, fintech businesses, and financial institutions. • Fintech companies that provide services such as e-lending, trade finance, capacity building, blended finance, blockchain, public and private rating services, payment solutions, and humanitarian and financial inclusion services will be able to pitch their ideas to potential donors and sponsors through the platform.
Climate and green financing	Green bonds a debt security issued by a company with the intention of funding or refinancing initiatives that improve the climate and/or environment. Green bonds are used to fund or refinance initiatives that improve the climate and/or environment. The Climate Bonds Initiative is an invaluable tool for monitoring the issue of green bonds worldwide and locating a list of independent verifiers of green bonds. Tax benefits could be provided by green bonds to entice investors.	• The surge in demand for green bonds can be attributed mostly to investors' adoption of socially conscious investing, rather than superior risk and return characteristics compared to traditional bonds. As previously stated, green bonds function in the same way as traditional bonds • In addition to that, green bonds might provide tax breaks like tax exemptions and credits (based on the issuer and jurisdiction). • The purpose of it is to entice financiers to fund environmental and/or climate-beneficial projects.

7. CONCLUSION

The financial services sector is an essential pillar of both South Africa's and Gauteng's economies, with its vast array of products and services significantly influencing economic activity and growth. As the sector evolves with technological advancements and increasing digitalisation, it demonstrates its critical role in facilitating transactions, savings, insurance, and credit. The sector's potential to support Gauteng Provincial Government's "Growing Gauteng Together 2030" initiative is substantial, given its capacity to attract foreign investment, stimulate economic growth, and support the development of key sectors and businesses, particularly SMEs and black-owned enterprises.

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GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

Furniture

SECTOR PLANS



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1. INTRODUCTION

The Gauteng Department of Economic Development (GDED) has initiated the development of a strategy for the provincial furniture sector, to provide a set of strategic interventions that will guide the provincial government's support of the local industry. As such, this strategy aims to clearly outline an implementation plan with the mandate of developing the competitiveness of small businesses in the Gauteng furniture manufacturing sector and a focus on securing the provincial government's key objectives of economic recovery and growing Gauteng.

According to the DTIC (2022), Furniture manufacturing in the country is highly dominated with more products from three provinces, Gauteng, KwaZulu Natal, and the Western Cape. Most Importantly, competition within the furniture manufacturing sector exists, from the perspective of African producers contending with high imports. Additionally, South African furniture manufacturers are facing major competition from Asian and other African countries' imports, such as Botswana and Namibia. A further barrier within the sector includes the difficulty in sourcing raw materials, shortage of higher skills, access to funding, no effective protection against very low-cost imports in South Africa and the SADC, poor market access, limited export support and investment, and SMMEs are unable to supply large retailers.

The development benefits from manufacturing are particularly significant in the furniture value chain mostly because of its labour intensity, skills development, linkages with other sectors, and export potential (Dunne,2022). The Furniture Master Plan indicates that furniture manufacturing is a labour-intensive industry, with strong backward linkages to South Africa's established raw material supply base. Although the domestic market for furniture and household goods is under pressure, the industry has the potential to accelerate economic transformation and sustainable job creation, if world-class manufacturing capabilities can be developed to enable local manufacturers to compete in domestic and international markets.

This document aims to provide a comprehensive furniture sector strategy for Gauteng, aligning provincial government objectives within a national framework. In line with the Growing Gauteng Together (GGT) 2030 vision, it seeks to contribute to and take the lead on the President's economy – while also focusing on sectors with high employment potential. Importantly, this strategy relies heavily on extensive stakeholder engagement and collaboration amongst the different spheres of government, the private sector, and industry organisations.

2. POLICY ALIGNMENT

Policy alignment is a crucial aspect of the furniture sector plan, ensuring that all initiatives and strategies are in harmony with existing government policies and regulations. This involves aligning the sector's goals and objectives with national and provincial policies, such as industrial development policies, trade policies, and economic development strategies. By ensuring policy alignment, the furniture sector can leverage existing support mechanisms, avoid duplication of efforts, and maximise the impact of its initiatives. This alignment also facilitates collaboration and coordination among various stakeholders, including government agencies, industry associations, and private sector entities, ultimately driving the sector's growth and competitiveness.

2.1 Growing Gauteng Together 2030

The GGT2030 plan of action is about executing the seven priorities with specific 162 interventions towards the Gauteng of our dreams, “The Gauteng We Want”. The GGT2030 plan of action sets out the vision for Gauteng of 2030, guided by the principles and priorities contained in the Freedom Charter, the NDP, the 6th administration manifesto, and work carried out to date as part of Gauteng’s Transformation, Modernisation and Reindustrialisation (TMR) programme. Considering the objectives of the GGT 2030, all relevant policies and strategies should be aligned and redesigned to directly target job creation if necessary. In other words, the current focus of targeting higher economic growth to create employment should be replaced with strategies which target an increase in employment to create higher economic growth (Gauteng Provincial Government, 2011, Chapter 2).

2.2 Furniture Industry Master Plan

The Furniture Industry Master Plan is part of implementing the government’s reimagined industrial strategy for South Africa. The Furniture Industry Master Plan was finalised in April 2021 to revitalise the furniture industry, which had been struggling in recent years. The industry offered an opportunity for small and medium-sized manufacturers to grow while creating jobs as it was a labour-intensive industry that added value to locally sourced materials. Over 90% of the industry consisted of SMMEs employing less than ten people. The Master Plan sought to improve the competitiveness of those firms through focused measures. Beneficiation of local products is critically important, with localisation as a focus; The notion of “proudly South African” is leading the promotion of locally manufactured products. (DTIC,2021).

2.3 National Development Plan 2030

The National Development Plan (NDP) 2030 goals for the furniture sector aim to drive economic growth, job creation, and skills development, while promoting innovation, sustainability, and good governance. To achieve this, the sector will focus on increasing local production and exports, investing in new technologies and manufacturing processes, and developing new products and markets. Skills development and training programs will be implemented to create jobs, while support for small, medium, and micro enterprises (SMMEs) will be prioritised. Vocational training, apprenticeships, and partnerships with education institutions will enhance skills, and infrastructure development will focus on logistics, industrial parks, and utilities. Innovation will be encouraged through research and development, adoption of new technologies, and design and product development. Sustainability will be promoted through environmentally friendly materials, reduced waste and pollution, and recycling. Finally, good governance will be ensured through compliance with regulations, support for industry associations, and fair labour practices. By aligning with the NDP 2030, the furniture sector will contribute to the country’s long-term vision while driving its own growth and development (South Africa. National Planning Commission, 2012).

3. NEEDS ANALYSIS

The furniture sector faces multifaceted challenges on a global scale, as well as specific issues within South Africa and the Gauteng province. The global furniture sector is facing significant challenges, including rising raw material costs, increasing competition, and shifting consumer preferences towards sustainable and online shopping experiences. The industry is also grappling with global supply chain disruptions, trade policies and tariffs, and fluctuating demand due to economic uncertainty. Additionally, the sector is struggling with skills shortages, insufficient research and development, and

limited funding, leading to a decline in investment in capital equipment and innovation. Furthermore, the industry is under pressure to adopt environmentally friendly practices and reduce its carbon footprint, while also addressing social and ethical concerns. These challenges are impacting the sector's profitability, growth, and its ability to create jobs, ultimately affecting the livelihoods of millions of people worldwide (Kaplinsky and Manning,2022).

The challenges in the furniture industry include:

- High Production Costs: The cost of raw materials and labour in South Africa is relatively high, making it difficult for local manufacturers to compete with cheaper imports. This issue is particularly pronounced in Gauteng, where industrial costs are elevated.
- Access to Finance: Small and medium enterprises (SMEs) in the furniture sector struggle to secure adequate funding. This lack of financial support hampers their ability to invest in new technologies, expand production, and improve product quality.
- Competition from Imports: The local market is flooded with inexpensive furniture imports, primarily from Asia. These imports often undercut local prices, making it challenging for South African manufacturers to maintain market share.
- Outdated Manufacturing Technology: Many South African furniture manufacturers rely on outdated equipment and processes. This not only reduces efficiency but also impacts the quality and competitiveness of their products.
- Skills Shortage: There is a significant skills gap in the sector, with a shortage of trained artisans and designers. This shortage limits the industry's ability to innovate and produce high-quality, design-driven furniture.
- Market Linkages and Distribution: Weak market linkages and distribution networks make it difficult for local furniture manufacturers to reach wider markets, both domestically and internationally. This limits growth opportunities and the export potential.
- Regulatory and Policy Issues: The sector is also impacted by regulatory and policy challenges, including complex labour laws and insufficient support for local manufacturing through government policies and incentives.

These challenges collectively hinder the growth and sustainability of the South African furniture sector, necessitating comprehensive strategies and interventions to address these issues effectively.

4. STRATEGIC OBJECTIVES

The sector plan seeks to align sector strategy with the adjusted plans of the Gauteng Medium Term Development Plan, the "Shifting a dial-in Gauteng" in alignment with the Government of National Unity 2024-2025. The interventions proposed herein are consolidated based on existing engagements with industry stakeholders and existing programmes being implemented by the Department. As a provincial strategy, there is an importance placed on strategic partnerships in implementing the strategy.

The Furniture Sector plan aims to facilitate the development of the industry through:

- Promoting employment in the furniture sector through skills development
- Promote localisations, through an overarching incentive programme and economic infrastructure.
- Promote demand for local manufactured goods and services, locally and across our borders
- Promote new venture creations from black industrialists, through an ESD and cluster programmes.

To achieve this objective, the interventions required should address

- Growing domestic market sales and export market growth.
- Increased localisation within the value chain.
- Addressing cost drivers to improve competitiveness.
- Increased participation of black-owned companies within the value chain.
- Technology and skills development for the sector.

5. FURNITURE SECTOR PROFILE

The South African Furniture Sector is an important sector due to both its labour intensity as well as its potential for developing small, micro, and medium-sized businesses, and for exports. The furniture manufacturing sector forms part of the country's manufacturing sector and many companies are involved in mattress and furniture manufacture (Gereff,2021). Most of the companies in the furniture manufacturing sector are classified as micro-enterprises which employ ten people or less. According to Dunne (2022), furniture manufacturers range from those who make use of low technology and highly skilled craftsmen, to highly mechanised, high-volume manufacturing operations. Companies can be part of a manufacturing group or can be independent manufacturers, while some sub-contract processes such as sanding or turning while others complete the whole manufacturing process themselves.

5.1 Furniture sub-sectors

The key Furniture sub-sectors in the South African market are Mattresses and Bedding, Lounge and upholstered goods, Case Goods, Kitchens and built-in units, Office furniture and School furniture.

5.1.1 Mattresses and Bedding

SA has several large and well-run bedding production companies. Imports are limited to small quantities in the premium market and low-cost alternatives at the lowest end of the market. This is a strong sub-sector with advanced retail infrastructure and capacity and some potential for greater exports, particularly in the SACU and SADC markets. This sub-sector has been resilient when compared to others and has substantial plant capacity to serve both the domestic and SADC markets. The key raw material inputs for the finished bed and mattress products are board or timber, fabric/ticking foam & fibre, glue, hardware, packaging, and spring units.

5.1.2 Lounge and upholstered goods

There is one large company making branded lounge products at various sites, multiple medium-sized suppliers with a diversity of offerings, and some vertically integrated manufacturers with retail operations. It is estimated that imported products account for approximately one-third of total sales with a value of about R1.5 billion per year, in this market segment. Competing with and replacing such

imports represents a great opportunity for expansion. The key raw material inputs for the finished lounge and upholstered goods products are board or timber-cron, fabric / ticking, filling, foam & fibre, glue, hardware, leather, mechanical actions, packaging, polyurethane, and spring units (Furniture masterplan,2021).

5.1.3 Case Goods

Case goods are items of furniture that are manufactured primarily from board products and solid timbers. Finished consumer case goods products include items such as cupboards, tables, pedestals, displays, and storage units. There are large numbers of medium-sized case goods manufacturers with diverse product offerings and some vertically integrated manufacturers who also own retail stores. Domestic manufacturers who have the capacity to produce high-volume products struggle to compete with high-volume producers of low-end imported case goods products from Asian manufacturers. The key raw material inputs for the finished case goods products are board or timber, foil & edging, glass and mirrors, glue, hardware, packaging, polish, paint and thinners and polyurethane (Furniture masterplan,2021).

5.1.4 Kitchens and built-in units

This sub-sector comprises businesses of various sizes which include large and small-scale manufacturers, businesses that outsource production and informal sector players. Businesses in this sub-sector manufacture various forms of built-in and freestanding storage solutions, including built-in kitchens, freestanding kitchen furniture and storage solutions, bathroom furniture, built-in cupboards and walk-in wardrobes. The value chain and related key raw material inputs include panel products manufacturers (particleboard, MDF, etc) hardware manufacturers (taps, sinks, etc), design software suppliers, hardware and fittings components manufacturers, laminates, surfacing material manufacturers (stone, porcelain, quartz, etc), stone or solid surfacing material fabricators (Furniture masterplan,2021).

5.1.5 Office furniture

This sub-sector offers a wide range of products in the corporate, public sector and domestic market segments. Products can be ordered predesigned or customised and may be sold as assembled or unassembled units. The product offering includes bookcases, cabinets, chairs, desks, soft and hard furnishings, storage units and boardroom tables. The key raw material inputs include laminates, plastic, plywood, edging, melamine-faced board, MDF, particleboard, steel, and textiles (Furniture masterplan,2021).

5.1.6 School furniture

School furniture is a designated product and is manufactured primarily from locally sourced and produced raw material inputs. The main markets for school furniture are the growing private education sector and the state education sector. In the public sector, the procurement and specification of school furniture products are done on a regional basis by the relevant provincial or private education bodies. The key raw material inputs for finished school furniture products include plastic, solid timber, edging, hardware and fittings, melamine faced board, MDF, particleboard and steel (Furniture masterplan,2021).

5.2 Economic Indicators

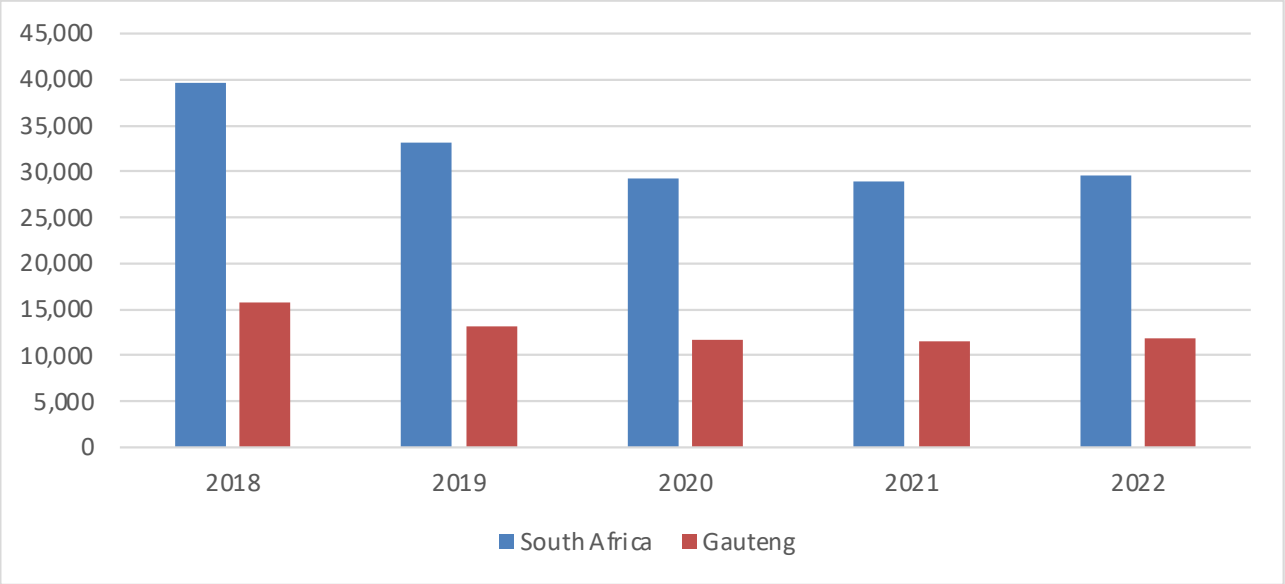
The furniture sector's economic performance can be comprehensively measured by a range of key indicators, including production value and growth rate, which assesses the sector's overall output

and expansion. Employment numbers and skills development gauges the sector's contribution to job creation and workforce capabilities. Export earnings and international market share evaluates the sector's global competitiveness, while domestic sales and market size measures its local impact. Additionally, productivity and efficiency gains assess the sector's ability to optimise resources, and competitiveness and market share of local manufacturers evaluates their ability to compete with international counterparts.

5.2.1 Gauteng Employment contribution

The Furniture Industry is an important sector in the South African economy and contributes approximately 1.6% to overall employment in South Africa's manufacturing sector. It is one of the most labour-intensive industries and has the potential to create multiple employment opportunities. Figure 1 below, represents the number of people employed by the Furniture sector in Gauteng province.

Figure 1: Employment in South Africa and Gauteng (Quantec EasyData,2023)



The overall decrease in employment numbers from 2018 to 2021 suggests challenges within the furniture sector, potentially influenced by broader economic conditions. Factors such as changes in consumer spending, shifts in demand, or economic downturns could have impacted the sector negatively. The year 2020 coincides with the outbreak of the COVID-19 pandemic, which severely disrupted economies worldwide. Lockdown measures, supply chain disruptions, and decreased consumer spending likely contributed to the decline in employment within the furniture sector. The slight recovery in 2022 could be indicative of the sector gradually bouncing back as economies stabilise post-pandemic. While the slight increase in employment in 2022 is positive, the furniture sector may still face challenges in the future. Factors such as technological advancements, competition from international markets, and evolving consumer preferences will continue to shape the industry's dynamics and employment trends.

5.2.2 GGP/GVA contribution

The GVA of the Gauteng region is calculated based on the constant 2015 prices dataset and is presented in

Table: 1 GVA of the Gauteng regions: Calculations based on Quantec EasyData (2023)

Regional output (R' millions)					
Region	2018	2019	2020	2021	2022
Sedibeng	95	65	47	57	57
West Rand	124	85	62	76	77
Ekurhuleni	386	258	185	221	219
City of Johannesburg	871	582	418	504	500
City of Tshwane	364	239	169	200	196
Gauteng TOTAL	**1 840**	**1 228**	**880**	**1 059**	**1 049**

Overall, there seems to be a decreasing trend in GVA regional output in the furniture sector from 2018 to 2022. The total GVA for Gauteng decreased from R1,840 million in 2018 to R1,049 million in 2022. The City of Johannesburg consistently has the highest GVA output throughout the years, followed by Ekurhuleni. Sedibeng and West Rand show a general decrease in GVA over the years but with slight fluctuations. The City of Tshwane also experiences a decrease, although not as sharp as some other regions. There's a noticeable drop in GVA output across all regions from 2018 to 2019.

The year 2020 saw another significant drop in GVA values across most regions, likely reflecting the impact of external factors such as economic downturns or pandemic-related disruptions. While there was a slight recovery in 2021, the GVA values in 2022 generally remain lower than those in 2018. The GVA of Gauteng is the sum of the GVA values of its individual regions. It's evident that the trends within Gauteng largely mirror the those observed in its individual regions, with decreases over the years.

5.3 Furniture Value Chain

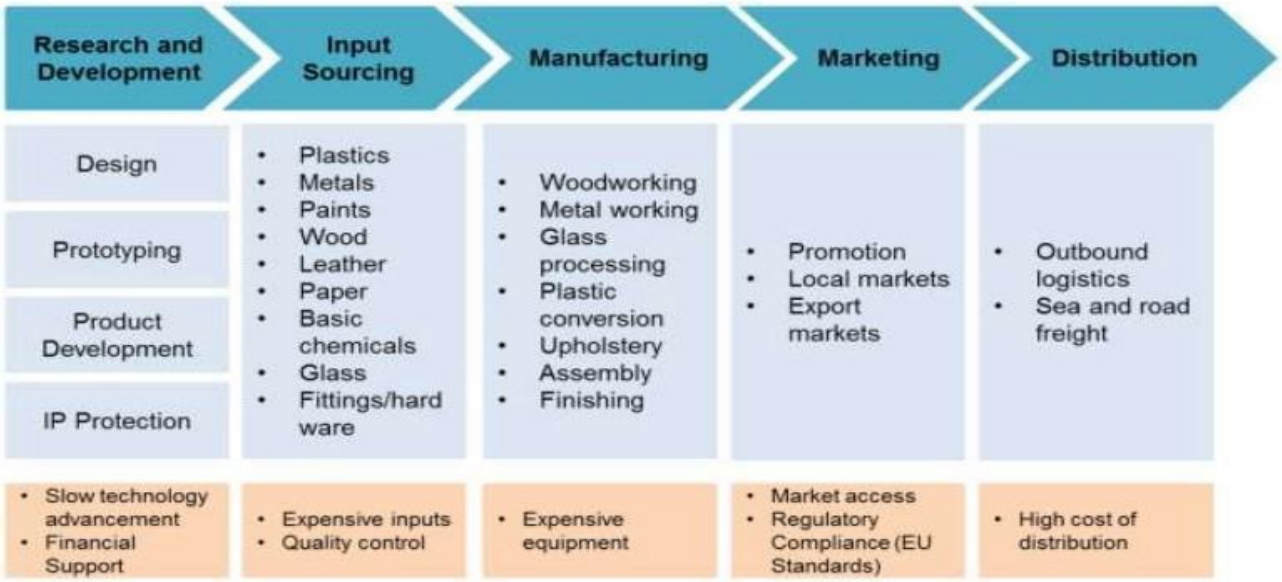
The value chain of the furniture sector starts with research and development (R&D) into new products. This includes the conceptualisation of new furniture designs. These designs are then prototyped through 3D printing. Mock-ups are generated and refined until the final product blueprint is signed off. It is at this point that it becomes important to protect the designs against "copycat" or knockoff markets.

The South African furniture market is characterised by slow technological advancement and a lack of financial support for R&D into new furniture designs. Furniture manufacturers depend highly on reverse engineering, following trends in the design space as opposed to setting them.

Input materials and components are sourced from different sectors such as forestry, machinery, textile, plastics, basic chemicals, glass and paint. South African small-scale manufacturers face a challenge where procurement of raw materials is concerned. They are unable to acquire order volumes that may lead to optimisation of economies of scale. This has a direct negative spillover effect on the quality of the inputs. It is then vital to understand how the various industries integrate to supply the input raw materials. Proper coordination of procurement and alignment to applicable

buying patterns of the different industries may improve cost-effective buying.

Figure 2: Furniture Manufacturing Value Chain (UNIDO,2022)



The South African furniture industry is also characterised by high equipment costs which in turn affect the ability of small manufacturers to acquire high-end, cutting-edge technology. The manufacturing node of the value chain sees the incorporation of novel design software (such as Computer Aided Drawing) into computer-driven manufacturing technology such as Computer Numerical Controls (CNCs). The use of such equipment ensures precision and improves the quality of the final products. The main production processes include clustering wood-based furniture (upholstered and un-upholstered), metal-based furniture, glass-incorporated furniture and plastic-based furniture.

Depending on the market that is being served, furniture passes through various intermediary marketing and transportation stages before it reaches the final customer. Creating and enhancing market access involves unlocking the local appetite for final products and gaining access to export market opportunities. This is currently being hampered by quality requirements in destination countries. Certain countries, particularly Europe insist on specific quality standards being adhered to before acceptance of furniture imports.

Distribution is achieved through direct (facilitated by the manufacturer) or indirect (facilitated by an agent) distribution and is often linked to marketing. Distribution includes the transportation of goods to target markets. Road transport is mainly used for local and cross-border distribution, whilst sea freight is used mainly to reach overseas markets.

The South African Furniture Sector value chain is characterised by:

- Several Inefficiencies and high costs within the value chain.
- Low yields and increased costs upstream affect manufacturing.
- Growing Imports increasing - downward pressure on prices.
- Retailers placing downward pressure on prices through supply chain import practice.
- High costs for local inputs for SMMEs and large manufacturers affect price competition.

The Furniture manufacturing industry is recorded as one of the manufacturing industries, yet it is among of the worst sectors hit by imports and shows a massive trade deficit. It is the third largest labour-intensive manufacturing industry, with huge inputs in terms of raw materials including wood, natural and synthetic textiles and fabrics, steel and other metals, adhesives, and paints. Those raw materials require beneficiation from forestry to sawmills, from abattoirs to tanneries, and from dying and spinning to upholsterers of finished cushions and soft furnishings.

5.4 SWOT Analysis

Table 2: SWOT analysis of the furniture sector

Strengths	Weaknesses
• Raw materials required for manufacturing are available within the country. • Support from the government. • Market opportunities in SA and other African countries.	• Shortage of higher-skilled labourers. • Insufficient investment in capital equipment, design skills etc. • Lack of competitive designs, innovation, and new range of products. • Insufficient market access for local SMMEs.
Opportunities	**Threats**
• Clustered SMMEs within the programme can therefore be able to supply and secure big opportunities. • Local manufacturers can in the meantime take advantage of the local market by manufacturing their furniture products and selling them locally (Local content 85% - 100%).	• High input costs, particularly raw materials, transport, labour, water, and electricity. • Insufficient grants, incentives, and investments in the furniture industry. • Load Shedding which causes low productivity. • Shortage of furniture training programmes, and specialists. • High influx of cheap, unregulated, and illegal furniture from Asian Countries. • SMMEs are unable to supply large furniture retailers, which collectively have a 0% share of the local market.

Name of Stakeholder	Purpose	Role
PG Bison	• PG Bison is a South African company with over 120 years of experience in manufacturing wood-based panel products. Some of the products that they offer include laminate kitchen worktops, decorative paper products and melamine resin products.	• PG Bison is a critical partner in the furniture sector that will assist in offering high-quality wood-based panel products, essential for furniture manufacturing ensuring a consistent supply of materials, reducing production disruptions and offering a one-stop-shop for furniture manufacturers, simplifying the sourcing process.
Proudly SA	• Proudly SA is a South African organisation that aims to promote and support local businesses, particularly Small, Medium, and Micro Enterprises (SMMEs).	• Proudly SA is a critical partner in the furniture sector that will assist in helping SMMEs develop effective marketing strategies & branding. Providing access to local and international trade shows, exhibitions, and conferences for SMMEs that are market ready. Proudly SA also has a digital platform in which SMMEs can showcase their products and services to a wider audience.
Kitchen Specialist Association South Africa (KSA)	• The Kitchen Specialists Association of South Africa (KSA) is a professional trade association formed in 1989 to promote and support the kitchen industry in South Africa.	• The KSA has a network of suppliers, manufacturers and consumers that can assist skilled youth in finding job opportunities and provide continuous education and upskilling, which can help skilled youth enhance their skills and become more employable.

6. Stakeholder Mapping

Name of Stakeholder	Purpose	Role
Furntech	Furntech is South Africa's Centre of Excellence for the furniture industry. Furntech provides business incubation services to support the growth and development of furniture manufacturing businesses and offers skills development opportunities to enhance the skills of people in the furniture industry. Furntech has a national footprint, indicating that it has a presence and impact across South Africa, making it a significant player in the furniture industry.	The Gauteng Department of Economic Development has signed an MOU with Furntech In 2018. The purpose of this partnership was to implement a comprehensive programme focused on furniture manufacturing skills development and the development of Small, Medium, and Micro-sized Enterprises (SMMEs). The role of Furntech in the Gauteng Furniture sector is to: • Provide business incubation. • Skills development training for youth
Department of Trade, Industry and Competition	As the national Department responsible for industry growth and development, is a critical strategic partner for the implementation of the Gauteng Furniture Sector Plan. The Dtic is mandated to: • Promote structural transformation, towards a dynamic industrial and globally competitive economy. • Provide a predictable, competitive, equitable and socially responsible environment, conducive to investment, trade and enterprise development. • Broaden participation in the economy to strengthen economic development	To provide a strategic direction through the Furniture Master plan and Trade and Investment guidance for the export promotion programmes and sector development for the furniture sector. GDED has been working with the DTIC since 2019.

Name of Stakeholder	Purpose	Role
Department of Small Business Development	The department's objective is to create a vibrant and sustainable small business sector that contributes to South Africa's economic growth and development. The DSBD aims to: • Promote entrepreneurship and small business development. • Foster a supportive environment for small businesses to grow and thrive. • Address challenges faced by small businesses, including access to finance, markets, and skills development. • Encourage innovation and competitiveness among small businesses. • Empower previously disadvantaged groups, such as women, youth, and people with disabilities, to participate in the economy through small business ownership. • Facilitate access to government procure-ment opportunities for small businesses	The DSBD can assist in: • Facilitating access to markets and procurement opportunities, • Offering expertise and funding opportunities for SMMEs within the furniture sector • Providing national-level support and resources for small businesses, complementing the Gauteng Department of Economic Development efforts. • By partnering with the National Department of Small Business Development, the Gauteng Furniture Sector Plan can leverage national resources and expertise to drive growth, innovation, and job creation in the sector. This collaboration can help address specific challenges and opportunities in the furniture industry, promoting a competitive and sustainable sector in Gauteng.
South African Furniture Initiative	• The South African Furniture Initiative (SAFI) is a national program aimed at growing and transforming the furniture industry in South Africa.	SAFI is an important stakeholder because it will assist in ensuring that there are: • Facilitation of market access and procurement opportunities, providing access to industry experts and networking opportunities

Name of Stakeholder	Purpose	Role
	SAFI provides support to furniture manufacturers, suppliers, and designers to enhance their competitiveness and sustainability. They offer training, mentorship, and funding opportunities to promote innovation, job creation, and economic growth.	• Collaboration and partnerships among other stakeholders within the furniture sector. • Offering resources and support to SMMEs for exporting and international trade
FP&M SETA	• FP&M SETA, or Fibre Processing and Manufacturing Sector Education and Training Authority, is an organisation that was established in 2011 to support the growth of the fibre processing and manufacturing sector in South Africa. They provide support to 13 sub-sectors, including clothing, Footwear, Forestry & Furniture. They provide various services such as skills planning, research, mandatory and discretionary grants, accreditation and quality assurance, project implementation, monitoring and evaluation, supply chain management, and marketing and communications.	• FP&M SETA can provide various types of support to the Gauteng furniture sector, including the upscaling Skill Development Training programmes, and supporting supply development for the SMMEs within the sector.

7. MAJOR PLAYERS IN THE FURNITURE INDUSTRY

According to the Broke Furniture article, the furniture market in South Africa includes many prominent brands operating across different verticals. On the other hand, over 90% of the organisations in the South African furniture market have small to medium-sized enterprises.

7.1 Coricraft Group Proprietary

Since its origins in 1995, Coricraft has evolved into one of the most renowned furniture brands in South Africa. The business started with one store and has expanded to around 44 stores throughout South Africa. One of the foremost advantages of Coricraft is its passion for quality and durability alongside timeless designs. The Company offers repair, guarantee, couch cushions refilled, furniture delivery, and collection furniture from Coricraft. Coricraft Group provides leather couches, fabric chairs, display cabinets, lamp tables, barstools, beds, headboards, desks, shelving, lamps, picture frames, candle holders, carpets, and other accessories.

7.2 Steinhoff International

Steinhoff International is an integrated furniture retailer operating across the US, Europe, and Africa. It has an extensive network of diversified businesses in South Africa. The furniture brand offers products for homes and offices, ensuring the advantages of a diverse range of home décor products. Steinhoff International has been one of the top furniture brands in South Africa with its command over extensive manufacturing operations and supply chain operations within South Africa. In addition, the brand has been making consistent improvements in customer experiences. Products offered include living room furniture, beds, home décor accessories, office furniture and dining furniture.

7.3 Ukhuni Business Furniture

Ukhuni has evolved as one of the prominent choices for business furniture solutions in South Africa. The brand has utilised almost two decades of experience to create innovative furniture, allowing efficiency improvements. Ukhuni Business Furniture leverages the combined expertise of experts in project management, architecture, furniture manufacturing, and interior office design. The other notable advantages of Ukhuni include its credible service ethics and high-quality products. Ukhuni Business Furniture offers a range of products such as system desks, screens, power panels, storage cabinets, interior walling, chairs and seating furniture, lounge furniture, reception furniture and canteen furniture.

7.4 JD Group

JD Group Limited is a South African furniture retailer that sells furniture, appliances, and home entertainment products through six retail chains. The Group's chain store brands include "Bradlows," "Russells," "Joshua Doore," "Giddy's Electric Express," and "Price 'N Pride."

7.5 Ellerine Holdings

Ellerine Holdings is a large group operating in the retail furniture and home appliance sector. The group has almost 1156 furniture outlets throughout South Africa. Some of the most popular brand names associated with Ellerine Holdings include Furniture City, Town Talk, Mattress Factory, and Wetherlys. In addition, Ellerine Holdings has penetrated many urban as well as rural areas in South Africa. The massive portfolio of furniture brands associated with Ellerine Holdings proves their position among top furniture providers in South Africa.

7.6 Rochester

Since opening its doors in 1994, Rochester's aim has always been to put its customers first by providing them with timeless, elegant furniture that boasts top-end quality at an affordable price. Rochester is among South Africa's leading furniture retailers boasting just over 30 world-class retail outlets throughout Gauteng, Mpumalanga, North-West Province, Kwa-Zulu Natal, and Polokwane regions. Most of Rochester's products are manufactured locally, which not only boosts South Africa's local economy but provides peace of mind for after-sale service.

8. STRATEGIC INTERVENTIONS

GDED Furniture strategy of 2016 indicates 4 pillars that were identified as the core action activities to help improve the status of the sector, out of those identified a few will be used below as they are aligned with the goal of ensuring Economic growth, Job creation and investment in the existing infrastructures.

This work cannot be completed by the GDED working in a silo, the collaborative efforts approach will ensure the success of this strategy. The 3 spheres of Government, institutions (Universities, TVET, Incubators, and SETAs), industry bodies, organisations, associations, funding institutions and the private sector (including the Retail bodies) are the stakeholders that will ensure the success of the sector.

8.1 Research and Data Collection

GDED through the Knowledge and Research unit notes that there are local manufacturers (Big or Small) across Gauteng that are formal and informal; to know the entire scope of work that needs to be covered then information must be gathered on the location, capacity, skills, market and needs of all manufactures across Gauteng. If the aim is to have local manufacturers participating in the mainstream, then knowledge about these manufacturers is vital.

8.2 Development of multisectoral Cluster programmes

A cluster programme is an initiative that will bring SMMEs together to promote collaboration, innovation, and competitiveness. The goal is to create a concentrated and interconnected hub of SMMEs that will foster innovation through cross-industry collaboration, encourage the development of new products and services, and share resources and expertise across sectors to drive economic growth and development. The multi-sectoral cluster will cover aspects such as:

- Specialised Support Services.

This covers several areas that are indicated in the challenges, and it may be regarded as the core area of intervention. This step seeks to address the following areas:

- Incubation needs for existing Small Businesses
- Access to funding
- Technical Training Needs of SMMEs and the Unemployed
- Apprenticeship and experiential training,
- Access to machinery and infrastructure
- Business linkages
- Design skills
- Raw material supply (linkages to suppliers)
- Specialised support services outputs

Three programmatic outputs will be secured:

- A programme to facilitate technical skills development across the value chain
- A programme focusing on the provision of furniture, and associated componentry, design skills and associated technology development.
- The third is a programme focusing on pre-production skills and associated technology development.

8.3 Market Access

- The intervention seeks to ensure that in the next 10 years, small local manufacturers receive support through state-mandated purchases of 75% of their goods and services; increase domestic market share and increase furniture exports at a compounded annual growth rate. To achieve the desired objectives working closely with the Department of Trade and Industry, South African Furniture Initiative, and Proudly South African amongst other stakeholders will be essential.
- Market access outputs
- The proposed outputs of the market access are three-fold:
- Review and facilitate domestic market opportunities that align with local production capabilities
- Review and facilitate international market opportunities that align with local production capabilities.
- Inclusion of additional SMME furniture manufacturers in domestic and international market opportunities.

8.4 Supply Chain Optimisation

- This initiative extends specialised support and market access interventions aimed at boosting the participation of local manufacturers in government procurement, in line with the local content policy plan. It focuses on domestic markets where manufacturers are familiar with and adhere to consumer-defined quality standards. Additionally, the development of the Furniture Information Desk/Portal will facilitate business linkages and online marketing, providing easy access via computer or other digital devices.
- Supply Chain Optimisation
- The proposed outputs are three-fold:
- Increased local content through the manufacturing portion.
- Increased domestic purchases by South African furniture retailers.
- development of the Furniture Information desk/portal.

9. PROPOSED IMPLEMENTATION PROJECTS

The proposed implementation projects are fully aligned with the 2024-2029 Medium-Term Development Plan (MTDP) as they address key strategies and priorities outlined in the plan. Specifically, these programmes support decent employment through inclusive economic growth, enhance public employment & youth employment, enhance enterprise development and support across the small enterprise life cycle and building a skilled and capable workforce to support an inclusive growth path. By aligning with the MTDP, these programmes will contribute to the achievement of the plan's objectives and priorities, ensuring a cohesive and coordinated approach to development. These projects are implementable within the Department, its Agencies and Strategic partners and will be

implemented over the 2024 – 2029 MTEF period.

9.1 Furniture Manufacturing programme

Programme: The objective of this programme is to provide skills development training to unemployed youth and provide incubation support for SMMEs. The Gauteng Department of Economic Development (GDED) has entered into a partnership agreement with the Furniture Technology Centre Trust (Furntech) to implement a comprehensive programme focused on furniture manufacturing skills development and the development of Small, Medium, and Micro-sized Enterprises (SMMEs). This initiative is designed to tackle a range of economic and social challenges, including unemployment, skills gaps, economic expansion, poverty reduction, entrepreneurship development, and fostering inclusive economic growth within Gauteng Province. Through this agreement, approximately 99 SMMEs have been supported in the programme through virtual and residential, successfully, achieved R15 million turnover and created 405 jobs.

Implementation Partners: Furntech (2024-25 FY)
Partnerships: Department of Small Business Development (DSBD), FP&M SETA, Small Business Development Agency, Local Municipalities.

Table 4: Furniture Manufacturing Programme MTEF Plans

Key action	MTEF PLANS				
	2024/25	2025/26	2026/27	2027/28	2028/29
Furniture Manufacturing Programme	Provide training to candidates selected for full furniture-making skills training (NQF L2)	Providing skills develoment training in NQF L3	Providing skills development training in NQF L3 Facilitate apprentices/ Internships/work experience. Facilitate furniture study tours for benchmarking purposes.	Providing skills development training in NQF L3 Facilitate apprentices/ Internships/ work experience.	Providing skills development training in NQF L3 Facilitate apprentices/ Internship/ work experience
	Incubation support for selected SMMEs	Incubation support for selected SMMEs	Incubation support for selected SMMEs	Incubation support for selected SMMEs	Incubation support for selected SMMEs
Budget	**R 2 960M**	**R 2 960M**	**R 2 185M**	**R2 363M**	**R 3 123M**

9.2 Furniture SMMEs ESD support programme:

Programme: The purpose of this programme is to improve market access by enhancing SMMEs' ability to supply furniture products to large enterprises, government, and other markets. The programme shall support existing SMMEs in increasing production capacity, and sales revenue and explore new markets and customers. This intervention seeks to address the market access challenges faced by SMMEs in the furniture industry.

Partnerships: Department of Small Business Development (DSBD), Small Business Development Agency, Local Municipalities, National Department of Education, Provincial Department of

Education, National Treasury's Enterprise, and Supplier Development (ESD) unit
*Inclusive economy, Gauteng Enterprise Propeller
Table 5: Furniture SMMEs Support Programme MTEF Plans

Key action	MTEF PLANS				
	2024/25	2025/26	2026/27	2027/28	2028/29
Furniture SMMEs ESD support programme	Creating a database for maket-ready SMMEs which are in the Gauteng Province	Facilitate procurement with different government departments from national, provincial and local levels and other key Industry players.	Facilitate procurement with different government departments from national, provincial and local levels and other key Industries.	Facilitate procurement with different government departments from national, provincial and local levels and other key Industries.	Facilitate procurement with different government departments from national, provincial and local levels and other key Industry players.
Budget	**R 2 960M**	**R 2 960M**	**R 2 185M**	**R2 363M**	**R 3 123M**

9.3 Furniture Sector Export Programme:

Programme: The purpose of this programme is to support the export of locally manufactured furniture products into the African market, through the Africa Free-Trade Agreement and international markets. The programme shall support existing manufacturers to access export market opportunities, whilst providing small-scale manufacturers with export readiness support and a platform to engage in regional trade through trade missions and expos. This intervention seeks to address challenges of low levels of exports vs imports, and indirectly facilitate job creation and entrepreneurship.

Partnerships: South African Furniture Initiative (SAFI), Department of Trade Industry and Competition (DTIC), Proudly SA and Gauteng Growth and Development Agency (GGDA)

Table 6: Furniture Sector Export Programme MTEF Plans

Key action	MTEF PLANS				
	2024/25	2025/26	2026/27	2027/28	2028/29
Furniture Sector Export programme	Identify stakeholders and create the Gauteng Furniture Industry Steering Committee & Procurement Database.	Provide training and mentorship for SMMEs to become export ready.	Assist SMMEs exporting furniture in navigating international markets, regulations, and trade agreements.	Assist SMMEs exporting furniture in navigating international markets, regulations, and trade agreements.	Assist SMMEs exporting furniture in navigating international markets, regulations, and trade agreements.
			Collaborate with industry stakeholders, government agencies, and international partners to support the growth of the furniture export sector	Collaborate with industry stakeholders, government agencies, and international partners to support the growth of the furniture export sector	Collaborate with industry stakeholders, government agencies, and international partners to support the growth of the furniture export sector
Budget	**R 2 960M**	**R 2 960M**	**R 2 185M**	**R2 363M**	**R 3 123M**

9.4 Furniture Manufacturing satellite Hubs

Programme: The purpose of this programme is to support SMMEs in the furniture sector who have limited access to furniture manufacturing facilities and equipment to assist in the growth of small manufacturers. This programme seeks to establish Furniture Manufacturing Hubs in all the corridors of Gauteng province. These hubs are visioned as clusters that will help local SMMEs with market access, the latest technologies in Machinery and Equipment; and improve township SMMEs competitiveness through business linkages. This rolled out in line with the opportunities within the Local Content Procurement Policy of the Provincial Government of Gauteng.

The Gauteng Department of Economic Development is offering operational support to the two established hubs in the City of Tshwane and Lesedi Municipality, in partnership with Furntech. Furntech has been awarded a tender by the Department of Forestry, Fisheries and Environment (DFFE) to manage the Eco Furniture Programme for three years. The primary objective of this programme is to utilise invasive alien plant biomass to create products needed for furniture manufacturing, thereby generating work opportunities for previously unemployed individuals as part of the Expanded Public Works Programme (EPWP).

This latest initiative presents an opportunity to establish furniture manufacturing hubs in designated districts across the province. The following sites, existing and/or former Eco-Furniture Programme locations, have been identified as those where the impact will be greatest for the lowest possible investment.

Partnerships: Department of Trade Industry and Competition (DTIC), Proudly SA and Gauteng Growth and Development Agency (GGDA), the Small Enterprise Funding Agency (SEFA), and different municipalities in each region.

Table 7: Furniture Manufacturing Satellite Hubs MTEF Plans

Key action	MTEF PLANS				
	2024/25	2025/26	2026/27	2027/28	2028/29
Furniture Manufacturing Hubs in different regions within the Gauteng province	Identified 2 sites in the City of Tshwane and Lesedi Municipality. *Ekurhuleni Municipality Provide training to candidates selected for full furniture-making skills training (NQF L2) Incubation support for selected SMMEs.	Identify more sites in the province and provide operational support. Identify, Engage and Establisment of new partnerships.	Provide operational support for the different furniture hubs. Link SMMEs to government supply chain Opportunities	Provide operational support for the different furniture hubs. Link SMMEs to government Opportunities	Provide operational support for the different furniture hubs. Market Access
Budget	**R 2 960M**	**R 2 185M**	**R2 363M**	**R 3 123M**	**R3 232M**

9.5 Furniture Manufacturing Incentive

Programme: The purpose of this programme is to support the sector through government incentives that will assist the sector in growing current production levels, exports, and performance. The programme will assist in facilitating access to industrial financing for furniture manufacturers in the sector, small, medium, and large-scale manufacturers. This intervention seeks to address a lack of sector support towards the competitiveness of the sector and the capacity of local manufacturers.

GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

2024

Global Business Services

SECTOR PLANS



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1. INTRODUCTION

Global Business Outsourcing (GBS) is an emerging enterprise strategy where businesses delegate their processes to external service providers (Pandy et al, 2014). This strategy predominantly involves outsourcing non-core business activities; however, core activities may be outsourced occasionally. Non-core activities typically include customer relations; human resources; finance, accounting, marketing and sales.

Historically, enterprises outsourced their non-core activities to companies within their borders with (Pandy et al, 2014). However, the GBS strategy has evolved, and companies now frequently outsource these activities to offshore firms.

This shift aims to enhance the overall competitiveness of the outsourcing enterprise by ensuring that these activities are performed more economically by the service provider (Abtahi et al, 2023). Consequently, the value added by the companies receiving outsourced services is primarily based on their ability to reduce costs associated with these services.

The global GBS industry is experiencing substantial growth. Statistics project that the industry will grow to $183 billion in 2023 from the $163 billion valuation in 2020 (McKinsey & Company, 2020). This growth was expected to be fuelled by digitisation and automation of business processes (McKinsey & Company, 2020). While the global GBS industry is experiencing growth, the South African Business Process Outsourcing (BPO) industry is also expected to grow, albeit slower than other developing countries. 2012 the South African GBS sector earned revenues totalling $1.3 billion (McKinsey & Company, 2020). In the same period, the Chinese BPO industry recorded revenue amounting to $63.2 billion (XMG Global, 2012). However, by 2022, the South African BPO sector significantly increased its revenue generation to $29.1 billion (Source Fit, 2023).

Most importantly, the South African government has recognised the economic potential of the GBS sector in terms of job creation and poverty alleviation. Consequently, the Department of Trade, Industry and Competition (DTIC) has developed and implemented an incentives programme aimed at attracting investment within the GBS sector. Similarly, the GPG, through the Department of Economic Development (GDED), has finalised the Gauteng GBS sector Value Proposition Study and Incentives Package.

This study seeks to attract investment into the provincial GBS sector by highlighting the advantages that Gauteng Province holds over its international and domestic competitors. Therefore, while the growth of the GBS sector at the national level has been planned for and is expected, the GPG has also put measures in place to ensure that this growth extends to the Gauteng Province. Furthermore, the growth of the GBS sector in Gauteng is specifically targeted towards townships, where most province socio-economic challenges are concentrated.

These socio-economic challenges are underscored by, amongst other factors, the high unemployment rate. The urgent need for employment opportunities at both the national and provincial level is supported by statistics, which indicate that the country has an unemployment rate of 31.9% while Gauteng Province has a rate of 33.7% for the third quarter of 2023. With these figures in mind, the DTIC injected support amounting to R1.3 billion into the GBS sector between 2007 and 2018 (McKinsey and Company, 2020). Additionally, the DTIC provided further support of R1.2 billion in 2019. It is estimated that 80% of the new jobs created in this sector have been sustained by this

incentive scheme (DTIC, 2021). Moreover, it is projected that the South African GBS sector will create between 250,000 and 500,0000 new jobs by the year 2030.

At the GPG level, the provincial government has facilitated the operationalisation of the Merchants Call Centre located at the Jabulani Mall, and another site has been identified at Nasrec, which is currently being refurbished. Therefore, while the growth of the BPO sector at the national level has been planned for and is anticipated, the GPG has also implemented measures to ensure that this growth extends to the Gauteng Province.

1.1 Challenges Affecting the GBS Sector During and Post Covid-19

- Facilitation and access to stable network connectivity to support BPO sector operations.
- Identification and allocation of infrastructure (land) for investors in and around the corridors of the Gauteng Province.
- No financial and non-financial assistance from the provincial government targeted for small and emerging BPO companies especially ones that are managed by the previously marginalised.
- Lack of annual industry stats, information as well as policy documents, BPO/GBS value propositions and incentive programs which are readily accessible to support knowledge base and information flow to potential investors to make informed investment decisions.
- National, government and Metro Municipalities are working in silos.
    - Metros are competing instead of working together
    - No BPO Forums/committees for all the stakeholders
- The majority of the South African BPO industry is domestically oriented. This means that the majority of the workers' employees (whether employed by South African or foreign enterprises) mostly serve the domestic market.
- A large percentage of the South African BPO sector provides contact and call centre services and complex transactional services are not largely provided.
- Lack of accredited training or certification by a credible authorised institution.
- Average sector salaries are higher in Gauteng when compared to the Western Cape, Eastern Cape and KwaZulu-Natal.
- Non-standardised pay grades for different call centres.
- Lack of unionisation of call centre employees and career progression.

These challenges undermine both the South African National and the GPG programmes developed to create a conducive environment for the growth of the GBS sector. These challenges need to be addressed to allow the Gauteng GBS sector to "catch up" to the advances that both the Western Cape and KwaZulu-Natal have been able to accomplish locally. Ultimately, it is envisaged that this sector should contribute towards job creation, SMME development, skills formation and localisation. It is on this basis that the GDED intends to pivot the 5-year development plans by prioritising investment attraction for the GBS sector in the province. As such the GPG is aiming to effectively market and propel the GBS sector as the destination of choice in shared services thereby boosting investor confidence.

2. RATIONALE FOR DEVELOPING THE PLAN

The socio-economic challenges facing South Africa and the Gauteng Province require that economically uplifting plans be implemented to alleviate these challenges. To put matters into context, the country's unemployment is recorded at 31.9% whilst that of the Gauteng Province is recorded at 33.7% for the 3rd quarter of 2023 (Statistics South Africa, 2024). The majority of those who are unemployed, are youth, who need to be absorbed into employment. With the growth that the global and South African GBS sector is expected to experience, GPG intends to attract a large percentage of this growth through investment attraction and an enabling environment.

The target is to allow for expansion of the GBS sector into corridors of the province (City of Johannesburg; City of Tshwane; and City of Ekurhuleni) which are economically well resourced whilst ensuring that strategic investment is planned and implemented into corridors which are poor. These economically deprived corridors are those of the Sedibeng and the West Rand District Municipalities. Therefore, there is a need to have a balanced GBS provincial investment attraction approach that encompasses the developmental needs of the five corridors that exist in Gauteng. Moreover, the development of the sector in the province needs to encapsulate BBBEE targets which aim to transform the sector. Most importantly, the province needs to compete successfully and eventually match up to the advances that have been made by both the Western Cape and KwaZulu-Natal in this sector.

3. METHODOLOGY

A qualitative analysis approach is used to develop the 5-year BPO Sector Development Plan for Gauteng. This qualitative analysis utilises journal articles, industry engagements, stakeholder consultations, the 2021 GBS Masterplan and the GBS Market Quantification Report. The GGT2030 and the Gauteng Economic Recovery Plan 2020 are two further documents utilised for the development of this qualitative analysis.

This plan aims to outline the challenges stifling growth within the BPO sector and the interventions that can be deployed by GPG to unlock growth opportunities in this sector. Ultimately, the aim is to have a BPO sector in Gauteng that can attract investment, labour absorption and reducing the socio-economic challenges that are present in the province.

3.1 Industry Definitions of GBS/BPO

According to Du et al (2022), GBS is the delegation of one or more of business processes to an external entity that in turn owns, administers and manages the outsourced process based on defined and measurable performance criteria. Other authors extend the GBS definition to include the infrastructure that is required to deliver the services delegated. In this regard, GBS is defined as the process of outsourcing services through telecommunication and the Internet (Ranjana, 2014). Therefore, it is herein pointed out that for such outsourced services to be carried out, there is a need for internet and telecommunication infrastructure. To this end, countries that can better provide such infrastructure at a cheaper price in comparison to their competitors stand a better competitive advantage.

The GBS sector is further divided into segments which are Technology Outsourcing (ITO), Global Business Services (GBS) and Knowledge Process Outsourcing (KPO). These segments are outlined in the table below.

Table 1: GBS Sector Segments

Segment	Description	Example Of Activities
Knowledge Process Outsourcing (KPO)	Activities with a great level of complexity that require a high level of education and judgment.	Business consulting. Business analytics. Market intelligence. Legal services.
Information Technology Outsourcing (ITO)	Activities that consist of computer, technology and internet-related work. They exist in the low, mid or high-value activities of the value chain depending on the level of skills required	Software R&D IT Consulting Software includes activities such as applications development, applications integration and desktop management. Infrastructure is composed of applications management and network management.
Global Business Services (GBS)/ Business Process Outsourcing	Activities are in the low and mid-levels of the value segment and most consist of voice or front-office jobs	Enterprise Resource Planning (ERP): finance and accounting, logistics, procurement and operations. Human Resource Management (HRM): training, talent management, payroll and recruiting. Customer Relationship Management (CRM): marketing and sales, contact centres and call centres.

Source: BPESA, 2021

The ITO segment requires a higher level of skill in computing and programming. The KPO segment also requires personnel who are highly skilled as it requires personnel who are specialists in the production of knowledge. Activities that fall within the KPO segment range from research and Development (R&D) to market intelligence and legal services (Altman, 2013). Therefore, an entry-level matriculant might not be able to perform duties that fall under these two segments. These segments depict a higher value-add service offering in comparison to traditional BPO which is highly dominated by contact centres. The KPO and ITO segments provide an area of opportunity that the Gauteng Province should be envisaging to grow into. It should be no challenge for Gauteng to plan its growth of the GBS sector into the KPO and ITO segments of GBS. This is based on the reasoning that the province produces the largest number of matric and tertiary graduates per year in comparison to its competitors nationally. The province also hosts highly esteemed legal firms; highly advanced KPO and ITO hubs, internationally respected hubs of legal management and credit lifecycle management; and globally recognised vertical industry expertise.

Nonetheless, all these three segments as explained above are considered as horizontal services that can be of use to many other industries. Vertical GBS, on the other hand, focuses on specialised services and is particularly appealing to customers from the financial services industry, the healthcare sector, the manufacturing industry, and the retail sector. For instance, clients in research and development would

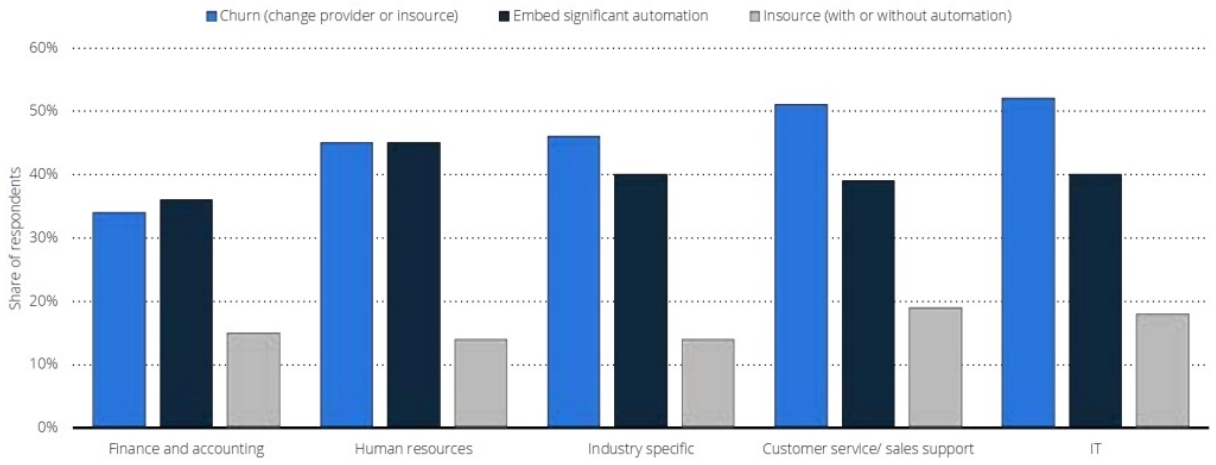
be interested in having statisticians and data analysts on board to enrich the industry-specific solution or service delivery. In this manner, the service experience of both the client and the customer is enriched.

3.2 Global Share of Business Services

By the end of 2023, the global GBS demand for BPO and IT services was projected to reach $1.01 trillion, and this projection is supported by the fact the sector has grown by an average of 8% compounded annually since 2018 (Genesis GBS, 2024). Africa comprises 2.5% of the global GBS workforce whilst the Asia-Pacific region contributes the largest workforce to GBS. To be more precise, the Asia-Pacific region contributes 32.5% of the global GBS workforce (Genesis GBS, 2024). Countries that are contributing to the Asia-Pacific region are the likes of the Philippines, China and India. These countries have been able to achieve considerable competitiveness within their GBS sectors and hence their contribution globally.

As stated in previous sections, GBS entails the offshoring of non-core business activities to enterprises that will carry out these activities to the best of their ability. The offshoring decision also hinges on the cost reduction that the offshoring company will be eligible for in comparison to if it were to conduct these business activities by itself. The country to which these services are to be offshored also must compete with other countries based on pricing. Nonetheless, this section aims to indicate the leading global services offshored in 2019. Figure 1 below outlines these services.

Figure 1: 2019 Globally Outsourced Services



Source: South African National GBS Quantification & Investment Report

Customer service/sales support is the second-largest outsourced service with a market size of US$18,11 billion. Industry-specific services are the third largest outsourced service. Global customer service/sales support has experienced modest growth over the last three years and is expected to continue experiencing gains through 2027. IT Outsourcing (ITO) is the largest outsourced service, with a total contract value of US$66,5 billion in 2019. Despite the dominating size of ITO, it is unclear whether this segment is as lucrative or growing as expected, as growth has stagnated between US$76,6 billion in 2000 and US$66,5 billion in 2019. However, some studies forecast that ITO services are to experience a surge or continued growth of 27% for the period ending the year 2027. This growth is expected in IT helpdesk support; software and app development; data analytics; annotation; and management. Therefore, the dominance of ITO services is expected to remain as

robust as it has.
Customer and sales support is expected to experience growth in demand of 24% for the year ending 2027. Growth in this segment of GBS is expected in voice-based and digital customer service and sales services. In this regard, it can be expected that customer service will continue to trail behind IT services.

The expected growth of customer and sales support, specifically voice-based services tie in with South Africa's competitive edge in that this segment of services has become the most dominant segment within the South African GBS industry. It accounts for approximately 80% of all the outsourced services work in South Africa (Anwar et al, 2019). According to Anwar et al (2019), these services are broken into inbound customer services (53%); outbound sales (10.8%); inbound sales (16%); debt collection (6.3%); and back-office processing (10.3%). It is from this perspective that support initiatives should be aligned to increasing the country's competitiveness and capabilities in this segment.

These percentages also give credence to the perspective that South African capabilities in the GBS sector are predominantly horizontal. This infers that most of the work carried out is generic and that the country has not yet ventured into specialised GBS services. Nonetheless, South Africa finds itself as a favourable GBS destination. This is anchored on the level of fluency that the English language is spoken throughout the country and significant cost savings in delivering the outsourced services. For instance, South Africa provides between 50%-60% cost savings in comparison to England and Australia in conducting voice and non-voice work (Anwar et al, 2019). However, competition to South Africa is presented in the form of other developing countries such as China and the Philippines.

These two countries have been dominant in attracting GBS investments. Competition to South Africa in the African Continent is seen from Egypt and Nigeria. Countries that are to dominate investment attraction in the GBS sector are those who will be able to focus on vertical services which require higher levels of specialisation in the services provided and flexibility as well as adaptability. This infers that countries likely to gain a larger market share in the GBS are those
who can lean more towards specialisation as opposed to offering generic GBS services.

3.3 India

In 2019, India was among the leading countries for offshore business services due to its cost-effective labour market, large talent pool and overall enabling environment for GBS operations. Other publications assert that India is the largest provider of GBS with countries such as China, Malaysia, Indonesia and Brazil occupying positions from second to fifth respectively (Anwar et al, 2019). This assertion is supported by the fact that the Indian market controls over 50% of the worldwide GBS shared services and is coupled with key characteristics such as a niche service offering by a considerable number of GBS operators in the country. Further to this, the government supports the industry and provides various incentive schemes and tax rebates to GBS players. Notably, the GBS industry in India recorded a CAGR of 9,3% and its market size in 2022 was USD 077.36 million. This figure is forecasted to more than double by the year 2030 and reach a market size of USD 12378.73 million.

To further add to the performance of the Indian GBS sector, it is worth noting that the industry commits to continuously promoting sustainable employment creation mainly in economically challenged regions through its India BPO Promotion Scheme (IBPS). As of 2021, the industry created a total number of 74,000 jobs, and it is estimated that the figure will rise to over 1.1 million.

3.4 Philippines

The Philippines GBS sector is fast becoming a notable competitor in the global market accounting for an estimated 10-15% GBS share worldwide. The largest contributor of the rapid growth of the BPO sector in the Philippines is the strong IT-enabled industry. As a result, the Philippines is the global leader in the voice segment. This sector in the Philippines is largely concentrated in telecommunications, fintech, healthcare as well as retail. Niche and high-value GBS activities have also expanded in activities such as medical prescriptions, publishing, legal services, and animation. All these activities have boosted the employed in this sector to being at 1.3 million citizens in 2019. Countries being served are the USA, New Zealand, Australia and Japan markets over 1000 source companies.

The Philippines Government has also implemented support programmes for its GBS sector. This is seen through the development of Special Economic Zones (SEZ) and the provision of appealing incentives in the form of tax exemptions. A special focus has also been placed on education and skills development. Government efforts have also led to an emphasis on marketing the country's GBS capabilities. Another critical competitive edge that has strengthened the GBS sector in the Philippines is the cost of labour which provides it with an edge over its competitive peers. All these factors have culminated in an increase in GBS sector investment in the country.

3.5 Egypt

Egypt is one of the strongest emerging GBS markets with a projected growth of $0.80 billion in 2024 and is expected to reach a market volume of $1.30 billion by 2028. The country is well endowed with a highly skilled workforce resulting in an increased demand for KPO services in the industry mainly in legal, engineering as well as analytics. A notable trend in the Egyptian GBS sector is the rising promotion of digital transformation in artificial intelligence and robotic process automation which are synonymous with cost-effectiveness and high productivity for the sector. Moreover, the government is actively supporting efforts to create a favourable environment to attract foreign investments through industry modernisation. The government also offers a range of tax incentives and infrastructure support to BPO companies setting up in the location. Further to this, the country has progressive laws that stimulate an enabling environment for BPO activities which are:

- Cybercrimes Law
- Data law protection in line with GDPR
- E-Signature Law
- New Investment Law

The country is expected to maintain a growth outlook due to its flourishing tourism industry which contributes to the hospitality and customer services industry. Egypt's GBS sector is therefore a large employer, and it is projected to account for an average of $23.66 per employee per spend in 2024. The underlying macroeconomic factors like the increasing labour costs persist in creating great competition for Egypt in the global market.

3.6 Nigeria

Nigeria is one of the most favourable emerging BPO locations due to its growing population and a high supply of skilled and educated labour. The industry boasts a total of 16,000 BPO agents, and with its fast-growing ICT sector, the revenue in the GBS market is expected to reach $1.14 billion in 2024. The South African National GBS Quantification & Investment Report states that the Nigerian government also implemented an incentives scheme through tax rebates and the development of

special economic zones. The industry is still emerging and still faces socio-economic issues around poor infrastructure and a shortage of skilled labour in certain regions. However, the GBS sector is resilient, and it is expected to display growth in the future due to rising foreign investment which will position Nigeria as a strong African shared services competitor in the coming years.

3.7 South African Overview

South Africa is a recognised global and continental GBS offshoring location in terms of the size of the sector, service delivery and quality. According to the South African National GBS Quantification & Investment Report, a combined domestic and international BPO market valued at $4,7 billion and employing 261,082 workers in 2021, it is rapidly emerging as a global outsourcing and offshoring frontrunner. Additionally, the sector also increased its export revenue by 15% for the period between 2019 and 2020 (South African National GBS Quantification & Investment Report, 2021). This was also accompanied by the creation of 17354 jobs. Although South Africa is still an emerging market when compared to traditional locations such as India, Malaysia and the Philippines, South Africa has been voted the most preferred offshore customer experience location as well as the top customer lifecycle management destination in 2021 (South African National GBS Quantification & Investment Report, 2022. This signifies the strides that the sector has taken and its future potential. It is for these reasons that it is expected to create between 200,000 and 500,000 cumulative new jobs by 2030. South Africa's expected growth and its competitive advantage in the GBS sector are premised on 5 critical factors. These factors are explained in the table below:

Table 2: 5 Critical Factors for South Africa's BPO Sector

Factor	Description
First World Infrastructure and Enabling Environment	High quality of life with superior business and operating environment infrastructure. A wide variety of government support in areas of skill development and infrastructure incentives for increasing investment in the BPO Sector. Global contact centre standards – ISO 18295 are based on South African standards (the global standard development was led by South Africa).
Evolving Capabilities for Next-gen Services for Digital Contact Centre	South Africa is pivoting towards the delivery for next generation of contact centres and digital services. In the core strength of contact centres, companies have successfully demonstrated capabilities for high-quality multi-channel customer experience, supplemented by deep customer analytics.
Good Quality English Speaking Talent	Availability of highly skilled, English-speaking talent pool with neutral accents and very high empathy levels. Additional talent pool through impact sourcing. Cultural affinity with the UK, Australia, and increasingly, the US Recognised domain knowledge in the banking and financial services sector. Availability of talent across multiple global delivery location options across the country.

Factor	Description
Significant cost savings	Cost of operations is at least 50-60% lower than those in England and Australia for both voice and non-voice work. Incentives further reduce the costs to bring them in range of costs in the Philippines and India.
Strong Foundation in Contact Centres and Niche areas of Work	Apart from contact centres, which have been one of the key strengths of South Africa's BPO industry, the scope of international delivery has expanded into non-traditional areas of work such as financial services, legal processes and healthcare.

Source: Everest Group, 2018

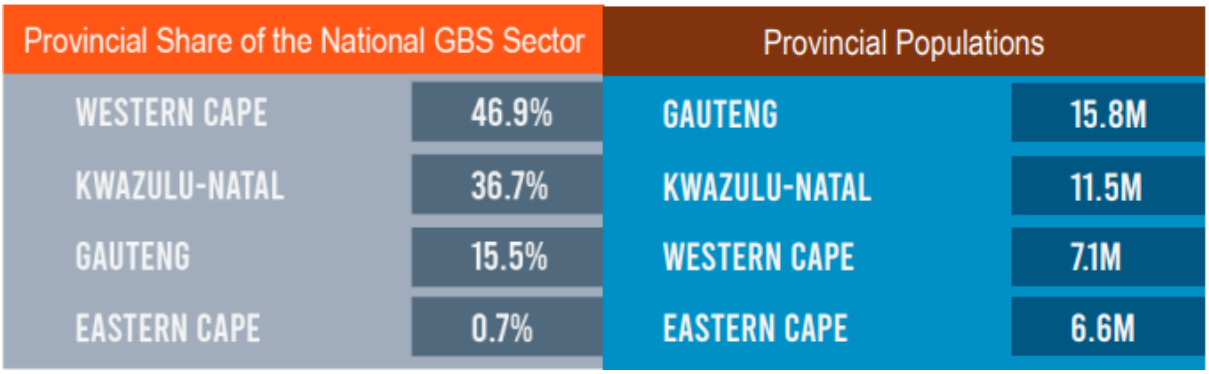
Over and above the competitive advantages that have been mentioned in the table above, the domestic GBS sector benefits from proactive government interventions, through the DTIC's various incentive programmes. According to McKinsey and Company (2020), these incentives are made accessible to small and large BPO providers. To put matters into context, the DTIC has injected support amounting to R1.3 billion in the period between 2007 and 2018 (McKinsey and Company, 2020). The DTIC has further injected support amounting to R1.2 billion in 2019. It is estimated that 80% of the new jobs created in this sector have been sustained by this incentive scheme (McKinsey and Company, 2020). Furthermore, industry associations such as the Business Process Enabling South Africa (BPESA) continuously promote a sound environment through marketing to lobby investors as well as aiding support for skills development in the sector.

The combination of government support, private associations and the inherent market competitive advantage that South Africa possesses in the GBS sector give credence to the expected sector growth. Of course, it is further expected that growth in this sector will assist in alleviating the socio-economic challenges experienced in South Africa and the Gauteng Province. This socio-economic benefit is particularly relevant considering that GPG intends to mostly see the growth of the GBS sector in townships where poverty and unemployment are mostly rife.

3.8 Gauteng BPO Sector Overview

Four provinces in South Africa are dominant in the GBS sector. These provinces are namely the Western Cape, KwaZulu-Natal, Gauteng, and the Eastern Cape as depicted in Table 2 below. The Western Cape (46.9%) leads in terms of international service delivery and is closely followed by KwaZulu-Natal (36.7%). Gauteng contributes 15.48% which makes it third in terms of provincial GBS contributions and the fourth biggest contribution is made by the Eastern Cape (0.17%). The contributions made by the different provinces also correlate to the number of jobs created and the overall economic spillovers. For instance, the Western Cape has absorbed the biggest number of people into its GBS sector with KwaZulu-Natal closely following. It is estimated that the Western Cape has absorbed 16 639 people into its GBS workforce with KwaZulu-Natal absorbing 13 020. Gauteng has absorbed 5492 people.

Figure 2: Provincial Share of BPO Services and Provincial Population (SA)



Source: BPESA Quantification Report 2021/22

The fact that the Gauteng Province has the third largest GBS international service delivery in South Africa implies that the province should thoroughly investigate the factors that have enabled the other two provinces to be leading and it to occupy third position. There are distinct advantages that the Gauteng Province possesses and these are a multi-faceted, multi-talented skills ecosystem with low operating costs; globally recognised vertical industry shared services expertise; robust enabling infrastructure and investor support, highly advanced KPO and ITO hubs with intensive digital delivery capabilities, the national hub of internationally respected legal and credit lifecycle management expertise, sophisticated, niche domain skills in back office, human resource and finance and accounting. These advantages offer a means through which the provincial GBS sector can be strengthened.

Embedded within these advantages is the fact that the Gauteng Province is the most densely populated in the country and as such it boasts a large skilled young workforce. This is supported by the fact that Gauteng produces the highest number of matriculants and tertiary education graduates per year in South Africa. This adds to its skilled workforce that is well-positioned to take advantage of opportunities presented across the BPO, KPO and ITO segments of GBS.

Tertiary graduates are particularly important for the provision of high-value vertical services and next-gen digital services (South African National GBS Quantification & Investment Report, 2021). This also applies to high-value ITO and KPO services. These services range from applications development, software research and development, market intelligence, business analytics and finance & accounting. Lastly, the province is the largest contributor in terms of GDP, and this implies that the provincial GBS sector can play a larger role in supporting the dominant sectors in the province such as the financial and services sector and other dominant sectors in the province. The point worth noting at this juncture is that the province possesses the requisite personnel infrastructure, and sites through which the potential carried by the GBS sector can be brought to realisation. In addition to these pointers, the Gauteng Province has developed its GBS Value Proposition and Incentives Framework strategic documents that are meant to steer the developmental trajectory of the provincial GBS sector.

The Gauteng GBS Value Proposition, Incentives Package and Strategy are tools to market Gauteng as the GBS destination to attract domestic and foreign operators and thereby steering investments towards the Gauteng GBS sector. The Incentives package advocates for managerial and specialist skills training incentives; Wide Area Network (WAN) and Local Area Network (LAN) infrastructure provision; Energy support programmes; One-stop Shop support initiatives; and GBS hub development initiatives. These strategic documents and all the GBS interventions that the Gauteng Province has

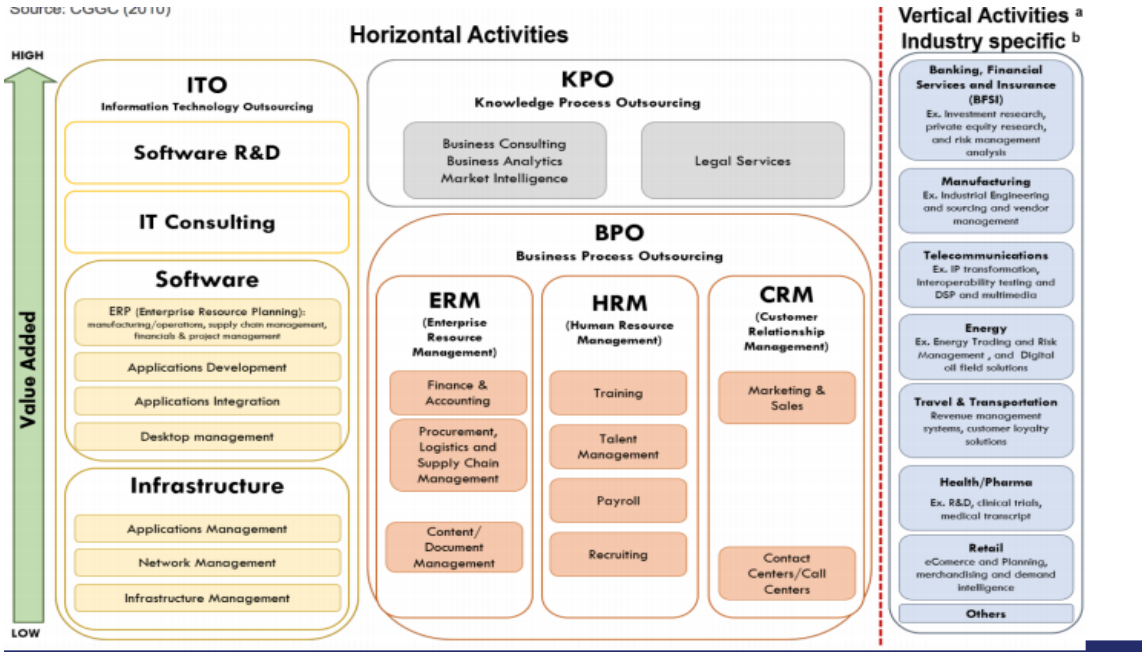
embarked on and is set to undertake are targeted at contributing towards the 100,000 new jobs target for the province by 2030.

3.9 GBS Value Chain Analysis

The outsourcing of non-core business activities to enterprises that are outside the borders of the offshoring companies can be inferred to be a Global Value Chain (GVC). Through GVC, enterprises, workers and consumers are linked on a global scale with each of the three actors having a specific role to play in this GVC (Fernandez et al, 2019). The practice of GVC is premised on the need to reduce costs and increase revenue; simultaneously, these enterprises seek to improve their customer experience. This is at times achieved by offshoring some of their business activities to external service providers. In this regard, GVC is a concept derived from offshoring services from the understanding that enterprises outsource their activities globally and the location to which these services have been outsourced to, has a significant contribution to make in its respective line of responsibility.

As indicated by Figure 2 below, KPO, ITO and BPO represent three broad types of offshore services that can be provided across all industries. All three business activities are process-oriented, and they are centred on fulfilling generic business functions (Fernandez et al, 2019). The more value-added services are carried out in the ITO and KPO services segments. These segments require higher educational attainments as professional advisory and specialist services are carried out within these segments. For instance, software R&D (ITO) and legal services (KPO) are not services that can be carried by someone who lacks the requisite educational background. BPO services, on the other hand, are a platform through which people of lower-end skills can contribute towards off-shored business activities. This is mostly represented by call centres and telemarketing services. Worth noting is that enterprises can start by operating in either one of the three service areas or expand into the other within the three segments. For instance, enterprises may start operating in the ITO services and improve upon their business offering by providing an offshore contact centre that will support their core ITO services.

Figure 3: Off-shore Services and Value-Addition



Source: BPESA 2021

The BPO sector presents an opportunity through which the South African youth can be absorbed into employment. This is based on its prerequisites being categorised as low-skill requirements. Nonetheless, vertical business activities refer to industry-specific expertise which have limited usability in other industries. They require more specialisation and offer an opportunity that the current Gauteng GBS sector can grow into if there are skills and qualifications available for this growth. Therefore, growth into vertical services has prerequisites in the form of education and experience. This is particularly relevant to high-value addition aspects of it. Therefore, there are significant educational and training initiatives that would have to be invested in to bring this situation into reality.

4. SWOT ANALYSIS

The below table depicts the strengths, weaknesses, opportunities and threats of the Gauteng GBS sector.

Table 3: SWOT Analysis

Strengths	Weaknesses
First-world infrastructure and enabling environment. Evolving capabilities for next-gen services for digital contact centres. Good quality English-speaking talent. Significant cost savings. Strong foundation in contact centres and niche areas of work. Established end-to-end-to-end process excellence and a commendable customer experience (CX) that allows for client satisfaction. Gauteng produces the highest number of graduates annually. Large youth population making it a location endowed with greater skills-set compared.	Lack of suitable digital infrastructure within township areas. Limited cooperation among industry players, including all three spheres of government agencies. Sector plans are produced independently. The GBS sector is dependent on the ability of the sector to market and promote itself to foreign investors. No training targeted at middle and team leader agents. Lack of safety and security around Gauteng. Coordinated approach from BPESA, agencies, the government and GBS firms Current training programmes are biased towards entry-level applicants and not to mid-level career
Opportunities	**Threats**
Experience and maturity in higher value end GBS services such as legal process outsourcing and financial services.	Gap in mid-level and team leader agents. Growing competition from other BPO locations KZN, WC and new entrants from Africa such as Ghana, Kenya and Rwanda. Incentive programs implemented in other countries attract domestic companies.

Opportunities	Threats
Swift adaptations to working remotely given the opportunities the model presents concerning space and proximity which are cost-effective for the workforce. Use of incentives as presented by the Gauteng Value Proposition and Incentives Framework.	

Source: GDED, 2024

The ultimate objective of the GPG is to extract as much economic benefits from the strengths and opportunities as presented in the table above whilst working to improve on the weaknesses and threats.

5. INDUSTRY DEVELOPMENT STRATEGY

The vision of the strategy is to position "Gauteng City Region as a Business Processing Services industry hub with increased knowledge and technology intensity capable of attracting investment for inclusive growth and development".

5.1 Strategic Pillars for Gauteng GBS Sector Development Plan

To develop and support Gauteng's GBS sector four key pillars of development have been identified, which all have an embedded focus on township economic revitalisation, previously disadvantaged individuals, the youth and women as well as persons with disabilities.

- Skills development.
- SMME development.
- Infrastructure development (land and buildings; and
- Digital/ICT Innovation development
- Other – Investment promotion, transformation and sustainability

5.2 Skills Development

The Gauteng Value Proposition document outlines the need for the GDED to target skills development across the sector. Of importance as highlighted in this document, is the targeting of managerial and supervisory skills as well as specialist skills. Managerial skills comprise managers and supervisors for contact centres, and it includes those involved in IT, finance and legal services. Specialist services are considered demand-led, and they comprise AI engineers, data annotators, finance analysts, junior software developers, legal aids and paralegals. It is further proposed that the support incentives are to be provided to operators in that costs related to these training be incentivised through cost reductions. A 25% cost reduction is proposed for managerial skills while 50% cost reductions are proposed for specialist skills.

GDED also intends to appoint a panel of operators through whom skills development programmes will be undertaken. Those who will undertake this training will have their stipends paid by GDED. In this manner, GDED will be subsidising the cost related to their training while reducing costs for the

operator in question. Therefore, the objective is to reduce the up skilling of the workforce.

5.3 SMME Development

Provide financial or non-financial support to small and emerging BPO companies to ease the barriers to entry to enable their participation in the mainstream industry and ultimately eliminate the high concentration of oligopolistic behaviour in the market.

KEY DEVELOPMENT AREAS

- Implement Leadership and Entrepreneurship programs targeted towards empowering managers of SMMEs.
- Grant programs and schemes dedicated to supporting emerging companies.

5.4 Infrastructure Development

- To enable the regeneration of the township economy and drive investment towards tier 3 locations, the provincial government should have a mandate to create a conducive environment for ease of doing business and address property limitations.
- Develop and roll out digital and high-speed broadband network infrastructure in township locations. GPG has initiated partnerships with Telkom, Herotel, and Broadband Infraco to provide internet connectivity to residents of townships and enterprises. Currently, more than 50 townships are covered with broadband.
- Investments have been made to modernise infrastructure for the rollout of the Gauteng Provincial Network (GPN). Wide Area Networks (WAN) have been extended to 12 349 sites and Local Area Network (LAN) reached 719 sites. Furthermore, 344 sites have been equipped with voice capabilities.
- Twenty sites have been identified to set up contact centre operations from
- There is a project titled “The Identification of Physical Infrastructure for the Gauteng Hubs Accelerator Development Programme “and it aims to provide hot-desking and developmental support for the three segments of GBS.
- Vacant government facilities and infrastructure are to be made available for setting up GBS hubs.

5.5 Technological/Digital Innovation Development

- Pilot skills training initiatives centred on automation techniques such as data annotation and data science to develop the support service side of the BPO industry.
- The investment recruitment strategy facilitated by the GGDA prioritised supporting emerging firms that are keen to set up operations locally.

5.6 Projects in Alignment to Sector Strategy Plans

Table 4: Finalised Projects

Project	Description	Progress
GBS Strategy, Value Proposition and Incentives Package	The project is implemented for the review, development and enhancing the provincial GBS strategy, VP and incentive offerings which will be used to market the industry as a favourable destination to local and international investors seeking to set up their BPO operations in Gauteng.	This project has been finalised.
Identification of Sites	The project is established to identify viable sites in all the corridors of Gauteng for setting up GBS hubs.	This project has been finalised.

Table 5: Proposed Projects 2024-2025

Project	Description	Progress
GBS Panel of BPO Operators	The project is aimed at developing a pool of GBS operators readily available to base their operations in Gauteng.	The Bid Adjudication Committee has recommended that the HOD approve the advertisement of this tender.
Launch of the Gauteng Value Proposition and Incentives Package	This project is aimed at highlighting Gauteng's GBS Value Proposition and the proposed investor incentives. The launch will serve as a marketing tool to present to the industry what value propositions and incentives are available for utilisation in Gauteng.	The launch is targeted to take place in the second quarter of 2024.

Project	Description	Progress
Gauteng Hubs Accelerator Development Programme	This programme aims to develop a hub in a township that will accommodate emerging enterprises that are in the Cultural and Creative Industries,	The request for a quotation on this project has been advertised.
	Global Business Services, Logistics and Warehousing and Information and Communications Technology.	
Global Business Services Investor Mapping and Research	This project is to outline which investors are best to target for investment attraction and the timeframes within which they should be targeted. This is to include comparative studies on what other source markets have implemented to attract investors.	The Terms of Reference and Business Case are to be finalised for internal approvals.
The development of the Gauteng GBS Corporate Video	This project aims to market and advertise the comparative and competitive advantages that Gauteng Province possesses over its competitors in the GBS sector. Moreover, it also aims to highlight the economic assets and infrastructure that are available for GBS investment in the province.	The TOR and Business Case have been distributed for internal approval.

6. CONCLUSION

The South African GBS sector has been showing signs of development and growth over the last decade. The DTIC has also put in place incentives to support the development of the sector. The Gauteng GBS sector lags that of the Western Cape and KwaZulu-Natal in terms of international service delivery. However, GDED has completed the development of several strategic documents that are geared at supporting the development of the provincial GBS sector. These strategic documents are in the form of the Gauteng Global Business Services Value Proposition, Incentives Package and Strategy. Other projects have been planned for the current financial year such as the Gauteng Global Business Services Virtual Investor One-Stop Shop, Global Business Services Corporate Video and Panel of Operators. The overarching objective of these projects is to ensure development in the Gauteng GBS sector. Therefore, strategic documents and projects have been finalised and planned respectively to support the development of the sector. The goal of the Gauteng GBS sector is to be the destination of choice for GBS investment in Africa.

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GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

2024

Green Economy

SECTOR PLANS



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1. INTRODUCTION

The Gauteng Provincial Government (GPG) has committed itself to the Growing Gauteng Together (GGT2030) road map, a vision for Gauteng in 2030 guided by the National Development Plan (NDP), the Gauteng's Transformation, Modernisation, and Reindustrialisation (TMR) programme, and other policy documents. The GGT2030 aims to turn Gauteng into a hub of opportunities, driven by a growing economy, smart innovation, and sustainable industries. As South Africa's leading commercial and industrial hub, the province contributes significantly to the country's industrial output and serves as a key regional logistical node. Its connectivity to the Southern African Development Community (SADC) region presents a broader market for the province's green goods and services.

Historically, government policies have favoured fossil fuels and energy-intensive industries, leading to the dominance of coal-fired electricity and carbon-intensive transport systems in Gauteng. However, the country is now committed to reducing carbon emissions and adopting greener technologies. This shift presents significant opportunities to develop green industries, goods, and services for both domestic use and export markets. The Gauteng Department of Economic Development (GDED) aims to enhance the productivity of local firms, ensuring their competitiveness in both domestic and international markets. Green economy products, such as renewable energy and energy efficiency solutions, can improve productivity by reducing costs and providing reliable power during outages.

This sector plan is being developed amid an economic contraction caused by the COVID-19 pandemic, which has exacerbated existing economic challenges, including those stemming from the 2009 financial crisis and ongoing load-shedding imposed by Eskom. Load-shedding remains a critical issue affecting household and business activities, leading to productivity losses and financial setbacks. It has also dampened investor confidence, making it harder for businesses to secure funding and grow. To mitigate the impact of load-shedding, the Gauteng Department of Economic Development has initiated programmes like the Energy Incentive Project for SMMEs and microgrid solutions. Improving electricity infrastructure is crucial for supporting small businesses' growth and resilience.

The National Treasury's National Economic Recovery Plan emphasises infrastructure-led development, localisation, energy security, and a transition towards a low-carbon, climate-resilient economy. The sector plan proposes interventions that support green growth and aim to strengthen the structural transformation and recovery of the Gauteng economy.

Table 1: GNU Party Manifestos on Green Economy Energy

ANC	DA	IFP
Only party to mention Green Hydrogen explicitly in its manifesto	Making infrastructure development a top priority by increasing the ratio of gross capital formation from 14 to 30 percent.	Ending load shedding through a mixed, diversified energy system.

Prioritise green technologies, energy efficiency and eco-friendly production processes to ensure long term sustainability, including a plan to become a global player in green hydrogen, battery and electric vehicle production.	Harness PPP to strengthen crucial energy, water communication and transport infrastructure. the strategy is designed to spark industrial expansion and attract investment Increase power generation outside of Eskom.	Open the energy market and diversify the energy mix. Fix the mismanagement of Eskom by converting it to a private partnership management model Further subsidise the price of electricity for the poor and historically disadvantaged communities
Just transition- ensure that transition to lower carbon economy supports communities and workers in affected areas	SA needs a determined shift towards a competitive energy sector where the state does not have a monopoly on power generation, supply and distribution.	Deregulate the price of fuel and open fuel imports Maintain coal production, acknowledging that coal remains a key source of energy
Renewable energy as emerging industry for entrepreneurship, innovation and Investment	Break up Eskom monopoly and increase self-generation by consumers, business and municipalities, essentially support prosumers	Favour the expansion of gas for domestic purposes, especially cooking and heating
Investment in the transmission grid	Prioritise investment in Grid infrastructure, that can handle generation from different sources	Promote wind turbines and solar power which, which present an opportunity for private investment for power generation of own use and supply into the grid.
Give national and provincial governments more powers for water provision.	Build local manufacturing capacity for renewable energy technologies without resorting to protectionist trade practices, incentivising the training and development of skills and capacity in the renewable energy sector	Install solar Pannels in all the new houses that we build Ensure that nuclear energy remains part of the energy mix in the hands of the state.

2. BACKGROUND

Green industrialisation and sustainable economic growth represent vital approaches to addressing a spectrum of interconnected development challenges, ranging from unemployment, poverty, and inequality to energy security and climate change.

The South African government, alongside increasingly engaged business and labour sectors, is actively embracing the green economy to achieve inclusive and equitable growth, fostering

sustainable development, eradicating poverty, and generating green employment opportunities.

The commitment to transitioning to a green economy has been articulated at the highest political levels, with the green economy transition agenda prominently featured in public policy frameworks such as South Africa's long-term development strategy, the National Development Plan: Vision for 2030 (NDP) (National Planning Commission, 2012). This plan advocates for a just transition to a low-carbon economy. Additionally, the National Climate Change Response Strategy outlines high-level parameters for carbon emission reduction.

Recognising the need for a just transition framework, South Africa initiated efforts in 2020 to develop a comprehensive framework informed by research, policies, and international best practices. This framework, situated at the intersection of climate action and development priorities, aims to enhance the quality of life for all South Africans by bolstering climate resilience, promoting equitable access to resources, and achieving net-zero greenhouse gas emissions by 2050, aligning with the latest scientific findings.

A just transition strategy enhances both economic and societal resilience by promoting affordable, decentralised renewable energy systems, sustainable resource management, equitable water access, a healthy environment, and inclusive land-use policies, particularly benefiting vulnerable communities.

In Gauteng province, the development of the Green Economy sector is coordinated through the Gauteng Green Strategic Program (GSP), established in 2011. The GSP advocates for resource efficient economic growth, emphasising strategic considerations aimed at fostering economic linkages within the broader city-region economy, neighbouring provinces such as North-West, Mpumalanga, and Free State, as well as economic ties with Southern Africa and the continent at large.

The GSP has identified key sectors as drivers for the growth of the Gauteng City Region (GCR) economy, focusing on sectors where the province can effectively implement relevant programs to spur development.

Table 2: Green Economy Sector key Projects,Programs and Interventions

Sector	Key projects, programmes/sectoral interventions
Built environment	Green infrastructure Building resilience of basic infrastructure
Energy	Uptake of the solar PV generation Localisation of new age energy technologies Adoption of energy efficiency Gauteng City Region market report
Sustainable agriculture	Improved food access Irrigation solutions Improved farming methods Agricultural value chain

Transport	Promotion of non-motorised transport Uptake of electric vehicles and transport Use of fuel cell technologies in the transportation sector Promotion of cleaner fuel transport Rail fleet
Water and sanitation	Water efficiency Water sources rehabilitation Use of groundwater Water intelligence report Improved water billing system Rainwater harvesting
Waste management	Industrial symbiosis Waste minimisation plans Waste intelligence studies

Source: GSP,2011

Built Environment

The strategy further outlines the roles and responsibilities that various stakeholders (including communities, businesses, civil society, academia, and provincial government) have in the implementation and governance of the sector. As indicated previously, Green Economy spans multiple sectors, including Energy, Transport, Waste Management, Green Building and Construction, and Agriculture. The value chain of the Green Economy necessitates a diverse array of inputs, which differ significantly in terms of capital intensity, technological requirements, skill levels, and entry barriers.

Green building and construction projects are typically outsourced to specialised design consultancy firms and major construction contractors. These contractors generally work under Lump Sum Turnkey (LSTK) or Engineering, Procurement, Construction, and Management (EPCM) agreements. Procurement decisions made at this stage significantly impact subsequent stages of the value chain, as contractors establish product standards and acquire equipment that necessitates ongoing spares and maintenance from specific Original Equipment Manufacturers (OEMs).

The Green Economy value chain encompasses a wide array of capital equipment, including drilling rigs, excavators, and material handling machinery such as Load-Haul Dumps (LHD), Articulated Dump Trucks (ADT), trains, and rolling stock. Smaller-scale equipment includes hoists, winders, and cages. Essential goods and services are required throughout the construction and processing phases. Consumables like Personal Protective Equipment (PPE), bricks, and fabrication products demand lower capital investment and technological sophistication.

Service providers within the value chain offer specialised engineering services, process control, logistics and transport, quality control and laboratory testing, financial services, and business support services such as legal, accounting, and management information systems. Environmental and waste management services have gained prominence, addressing critical safety and environmental concerns in the industry.

There are numerous opportunities within the Green Economy value chain, which

seamlessly integrates with both upstream and downstream market linkages.

3. GAUTENG GREEN STRATEGIC PROGRAMME

Gauteng Province's energy generation is predominantly reliant on coal-fired power plants, with a substantial amount of electricity supplied through the national grid. However, there is an increasing need to diversify the energy mix by integrating renewable sources such as solar and wind power. This transition to renewable energy is motivated not only by environmental considerations but also by the imperative to enhance energy security and reduce dependence on finite fossil fuels.

Gauteng's substantial energy consumption is driven by its diverse economic activities, including manufacturing, mining, commercial enterprises, and residential areas. To optimise energy usage and mitigate the environmental impact of high energy demand, stakeholders need to implement energy efficiency measures and sustainable practices.

Gauteng Province Baseline Energy balance

The baseline energy supply in Gauteng Province is primarily dominated by electricity, which accounts for 33%, followed by diesel at 23%, petrol at 21%, and coal at 14%, totalling 91%. The remaining 9% of the energy supply comprises Jet Fuel, Aviation Gasoline, Paraffin, Furnace Oil, LPG, LNG, and wood. This distribution is largely consistent across municipalities, with exceptions in Lesedi LM, Merafong LM, and Rand West City LM, where electricity constitutes 88%, 94%, and 89% respectively, and Emfuleni LM, where coal represents 67% of the energy supply.

Figure 1A: Gauteng Energy Demand per Secto

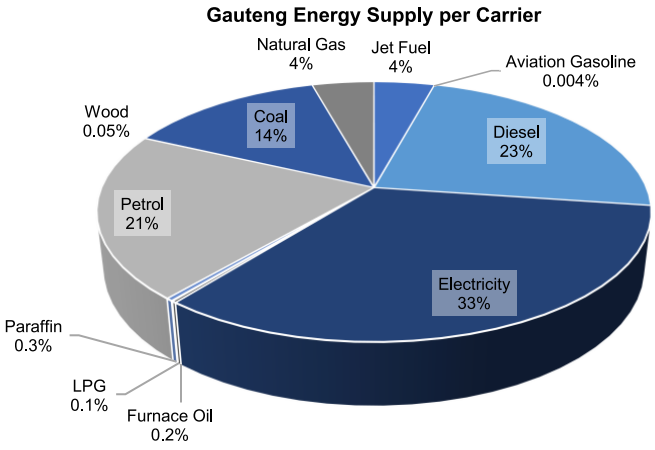
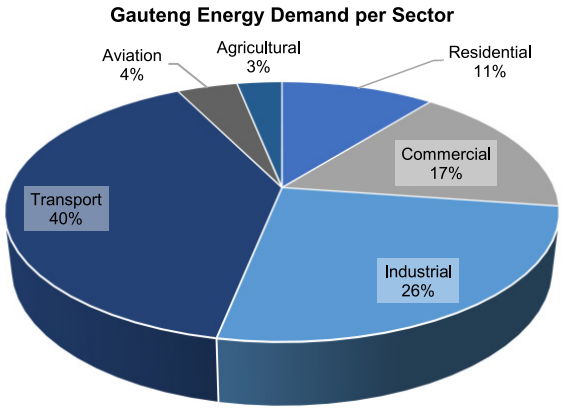


Figure 1B: Gauteng Energy Demand per Sector



Electricity supply in Gauteng Province is divided between Eskom and municipal areas, reflecting the general distribution throughout South African municipalities. A significant portion of Gauteng is supplied by Eskom; however, municipal supply areas are more densely populated, leading to municipalities having a larger share of the electricity supply. Overall, the three metropolitan areas City of Ekurhuleni (CoE), City of Johannesburg (CoJ), and City of Tshwane (CoT) account for two-thirds (67%) of Gauteng's electricity demand, contributing 24%, 27%, and 16% respectively. When considering only the municipal supply areas, these three metros comprise 91% of the electrical demand, with contributions of 32%, 33%, and 26% respectively.

Figure 2A: Gauteng Municipality and Eskom Area of Supply

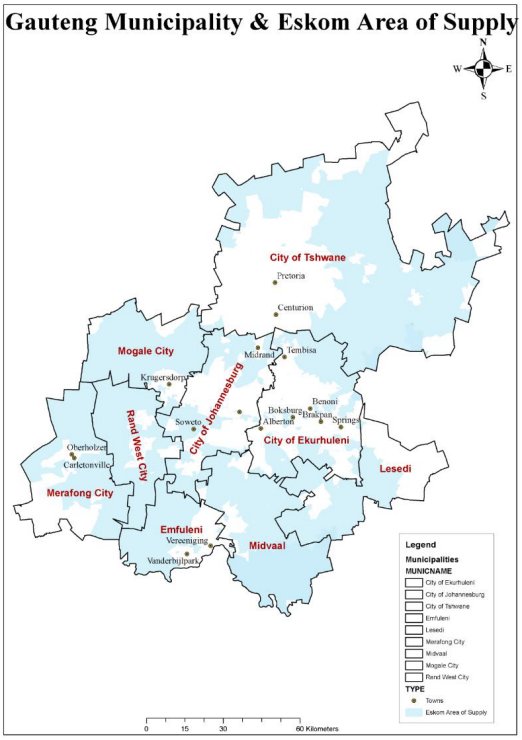


Figure 2B: 2020 Eskom Vs Municipality Supply

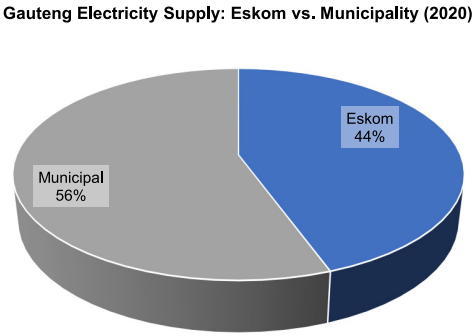
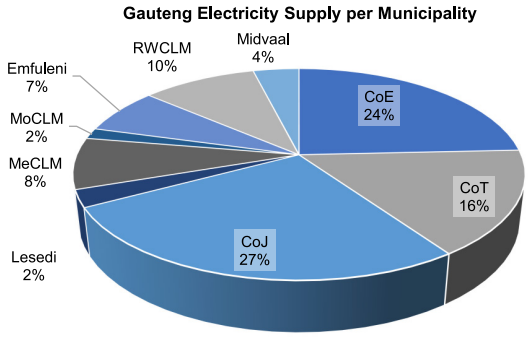
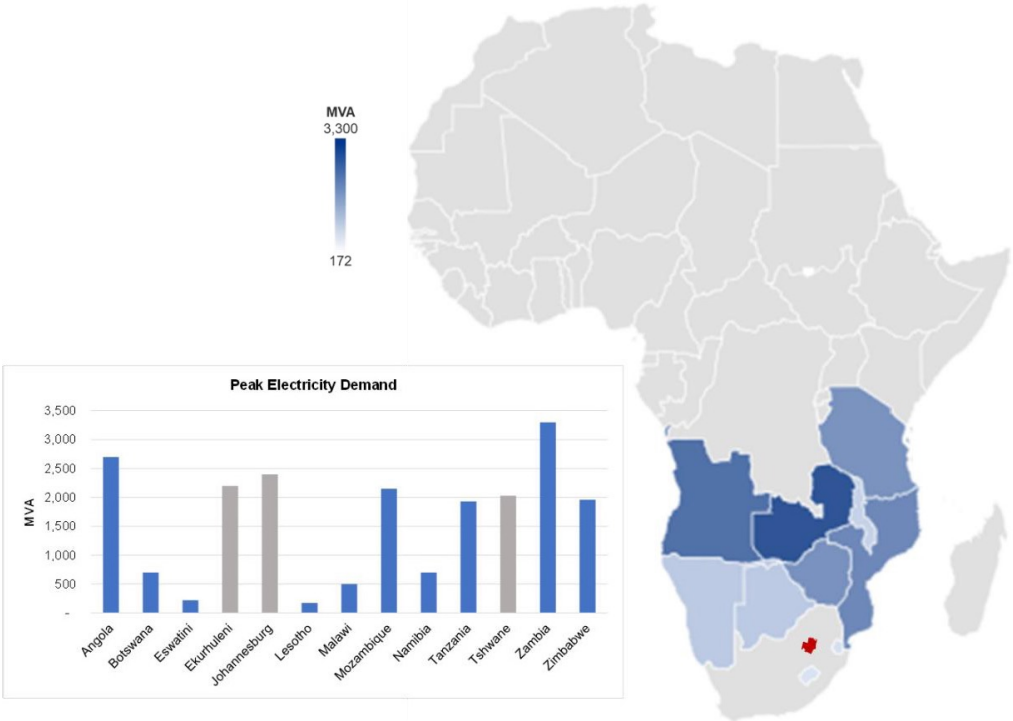


Figure 2B: 2020 Eskom Vs Municipality Supply



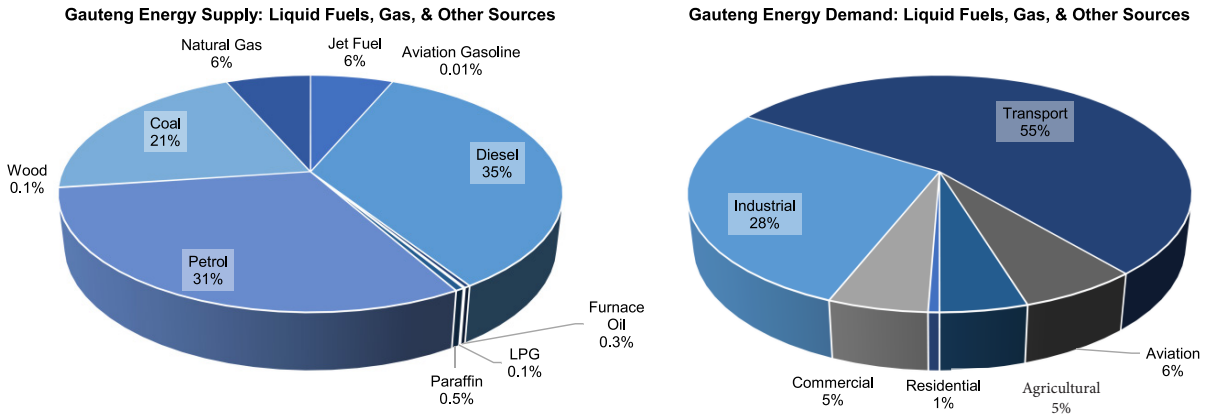
Gauteng Province accounts for 35% of South Africa's electricity demand, making it the most densely populated region in Sub-Saharan Africa in terms of energy consumption. In 2020, Gauteng's peak demand was approximately 13,000 MVA, compared to about 14,000 MVA for the Southern African Development Community (excluding South Africa). Additionally, the peak demands of Gauteng's three metropolitan areas are comparable to those of some neighbouring countries.

Figure 3: Gauteng Baseline CO2 Emissions



The baseline energy supply of liquid fuels, gas, and other sources in Gauteng Province is primarily dominated by diesel, petrol, and coal, contributing 35%, 31%, and 21% respectively. The transport and industrial sectors account for the majority of the demand, at 34% and 28% respectively. The remaining demand is distributed among the commercial, residential, aviation, and agricultural sectors

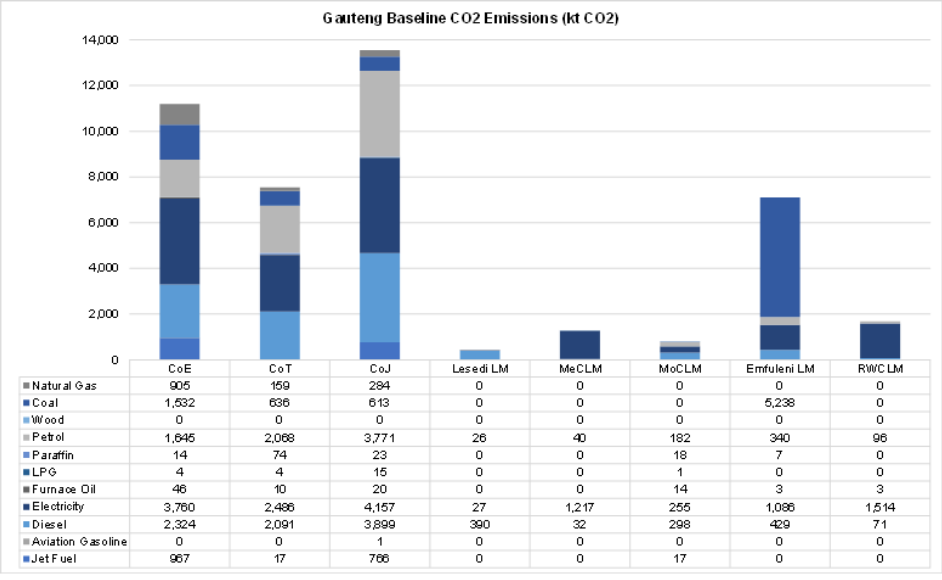
Figure 4A: Liquid Fuel Gas and Other Sources Supply Figure 4B: Liquid Fuel Gas and Other Sources Demand



The conventional method used to quantify Greenhouse Gases (GHG) in this report involved determining the Carbon Dioxide Equivalent (CO2e) values, which account for the Global Warming Potential (GWP) of each emission, converting them into a common carbon dioxide equivalent denominator.

For consistency, the Intergovernmental Panel on Climate Change (IPCC) emission factors associated with each energy carrier were applied. The CO2e emissions indicate that the three metropolitan areas (City of Johannesburg, City of Ekurhuleni, and City of Tshwane) and Emfuleni Municipality contribute the most to overall emissions. Emfuleni Municipality has a significant GHG emissions impact due to its highly industrial nature, specifically the steelmaking industry within the municipality.

Figure 4C: Gauteng Baseline CO2 Emissions



	CoE	CoT	CoJ	Lesedi LM	MeCLM	MoCLM	Emfuleni LM	RWC LM
Natural Gas	905	159	284	0	0	0	0	0
Coal	1,532	636	613	0	0	0	5,238	0
Wood	0	0	0	0	0	0	0	0
Petrol	1,645	2,068	3,771	26	40	182	340	96
Paraffin	14	74	23	0	0	18	7	0
LPG	4	4	15	0	0	1	0	0
Furnace Oil	46	10	20	0	0	14	3	3
Electricity	3,760	2,486	4,157	27	1,217	255	1,086	1,514
Diesel	2,324	2,091	3,899	390	32	298	429	71
Aviation Gasoline	0	0	1	0	0	0	0	0
Jet Fuel	967	17	766	0	0	17	0	0

Challenges and Opportunities

Challenges:

- Reliability: Ageing infrastructure and frequent power outages present significant challenges to the reliable supply of electricity in Gauteng, affecting both businesses and residents.
- Environmental Impact: The dependence on coal-fired power plants leads to air pollution and high carbon emissions, highlighting the need to transition towards cleaner and more sustainable energy sources.
- Energy Affordability: Increasing electricity prices pose a challenge for consumers and businesses, especially amid economic uncertainties.

Opportunities:

- Renewable Energy Integration: Expanding renewable energy infrastructure can help diversify the energy mix, reduce carbon emissions, and enhance energy security in Gauteng.
- Energy Efficiency Initiatives: Implementing energy efficiency measures in industries, buildings, and transportation can lead to significant energy savings and cost reductions.
- Infrastructure Development: Investing in modernising energy infrastructure, such as smart grids and storage technologies, can improve the reliability and resilience of the energy sector in Gauteng.

The energy sector in Gauteng Province stands at a crossroads, where the choices made today will shape the province's energy future for years to come. By embracing renewable energy, prioritising energy efficiency, and making strategic investments in infrastructure, Gauteng can pave the way for a more sustainable, resilient, and inclusive energy sector that meets the needs of its growing economy and population.

3.1 Sustainable agriculture

3.1.1 Introduction

In the dynamic landscape of South Africa's Gauteng Province, where urbanisation and economic growth intersect with natural landscapes and agricultural heritage, the pursuit of sustainable agriculture is cornerstone of development. Amid rapid urbanisation and shifting climate patterns, the imperative to establish Gauteng as a regional food hub is of paramount importance. This vision aims not only to cultivate local organic produce but also to ensure food security and promote environmental stewardship.

The Gauteng Sustainable Agriculture Programme embodies this vision, outlining a comprehensive strategy to foster a thriving agricultural sector rooted in sustainability and resilience. Through a holistic approach encompassing improved food access, advanced irrigation solutions, enhanced farming methods, agricultural value chain development, and regenerative land management, the programme seeks to address pressing challenges while capitalising on emerging opportunities.

This introduction sets the stage for a deeper understanding of the program's objectives, key components, implementation strategy, and the nexus of challenges and opportunities that shape the agricultural landscape of Gauteng. By embracing the principles of sustainability, innovation, and collaboration, Gauteng seeks to cultivate a future where agriculture thrives, communities flourish, and the bounty of the land sustains generations to come.

3.1.2 Key Components:

Improved Food Access

- Promote community gardens and small-scale urban agriculture initiatives.
- Establish farmers' markets and local food distribution networks to improve access to fresh, nutritious food.
- Support food banks and initiatives to address food insecurity in underserved communities.
- Irrigation Solutions:
- Implement efficient irrigation technologies and water management practices to optimise water use in agriculture.
- Provide training and support for farmers on sustainable irrigation techniques.
- Improved Farming Methods:
- Promote agroecological practices such as organic farming, permaculture, and regenerative agriculture.
- Offer training programs and incentives for farmers to adopt sustainable farming methods.

Agricultural Value Chain Development:

- Strengthen agricultural value chains by supporting local processing, storage, and distribution infrastructure.
- Facilitate access to markets and financing for smallholder farmers and local food producers.

Regenerative Land Management:

- Implement land rehabilitation programs to restore degraded landscapes and enhance biodiversity.
- Encourage agroforestry and sustainable land practices that improve soil health and ecosystem services.

3.1.3 Implementation Strategy

Policy and Regulatory Framework:

- Develop and enforce policies that incentivise sustainable agriculture and land use practices.
- Integrate sustainability criteria into zoning and land-use regulations.
- Capacity Building and Education:
- Provide training and technical assistance to farmers, landowners, and urban planners on sustainable practices.
- Collaborate with educational institutions to promote agroecology and sustainable land use education.
- Public-Private Partnerships:
- Foster partnerships between government, private sector, NGOs, and community organisations to implement projects and initiatives.
- Mobilise private investment in sustainable agriculture and land use ventures.

Challenges and Opportunities

Challenges:

- Limited Access to Resources: Small-scale farmers in Gauteng often face challenges in

accessing land, water, and financial resources necessary for sustainable agricultural practices. This hinders their ability to adopt modern farming techniques and improve productivity.

- Urbanisation Pressure: The rapid urbanisation in Gauteng poses a threat to agricultural land as it gets converted for urban development and industrial use. This diminishes the available land for agriculture and increases competition for resources, making it difficult for farmers to sustain their operations.
- Water Scarcity: Gauteng experiences water scarcity due to increasing demand and limited water resources. This scarcity impacts agricultural productivity, particularly in areas where irrigation is necessary for crop cultivation.
- Climate Change Vulnerability: Climate change poses significant challenges to agriculture in Gauteng, including unpredictable weather patterns, increased temperatures, and irregular rainfall. These factors can affect crop yields, livestock health, and overall farm profitability.

Opportunities:

- Promotion of Urban Agriculture: Encourage urban agriculture initiatives such as rooftop gardens, community gardens, and aquaponics systems to utilise limited urban spaces for food production. This can provide opportunities for small-scale farmers and contribute to food security in urban areas.
- Technology Adoption: Facilitate the adoption of technology-driven solutions in agriculture, such as precision farming techniques, drip irrigation systems, and digital farming tools. These technologies can improve efficiency, reduce resource usage, and enhance productivity for farmers in Gauteng.
- Value-Added Agriculture: Promote value-added agricultural activities such as agro-processing and niche market farming to increase the profitability of agricultural ventures in Gauteng. This can create opportunities for farmers to diversify their income streams and add value to their produce.
- Climate-Smart Agriculture: Implement climate-smart agricultural practices that are resilient to the impact of climate change. This includes promoting drought-resistant crop varieties, sustainable water management techniques, and soil conservation practices to enhance agricultural sustainability in Gauteng.
- By addressing these challenges and capitalising on opportunities, the Gauteng Sustainable Agriculture Program can support the development of a resilient and thriving agricultural sector that contributes to food security, economic growth, and environmental sustainability in the province.

3.1.4 Economic Implications

Promoting sustainable agriculture in Gauteng is crucial for stimulating employment in agriculture, agribusiness, landscaping, and green infrastructure development. This initiative will also enhance the resilience of Gauteng's economy, reducing external food dependency and mitigating economic risks associated with food price volatility. Improved food security is anticipated to elevate the quality of life for Gauteng residents, leading to better health outcomes and increased productivity.

By implementing a holistic program that integrates sustainable agriculture and land use planning, Gauteng can enhance its food security, economic resilience, and environmental sustainability. This approach aligns with the vision of transforming the region into a vibrant food economy hub while preserving and enhancing its natural resources for future generations.

To achieve these goals, the Gauteng province needs to establish performance metrics to monitor

progress towards food security, sustainable land use, and economic development objectives. Regular evaluations should be conducted to assess the economic, social, and environmental impacts of the program and ensure that desired outcomes are being achieved effectively.

3.2 Transport

3.2.1 Introduction

Green transport, also known as sustainable transport, refers to modes of transportation that do not have a negative environmental impact, such as fossil fuels. Green transportation modes are dependent on renewable energy sources which include wind and solar energy, hydroelectric power, and biomass, among others. South Africa, like many other countries, is progressively acknowledging the critical need to shift to sustainable and ecologically friendly transportation alternatives. Given the transportation sector's major contribution to greenhouse gas emissions along with various types of pollution, attempts to promote green mobility have become critical to mitigating climate change and improving air quality.

3.2.2 Policy Framework and Legislative Landscape

At the heart of South Africa's approach to green transport lies the Green Transport Strategy (GTS) for South Africa (2018-2050). This comprehensive strategy looks to reduce the negative environmental impacts of transportation while meeting current and future transportation needs. It lays out a strategy for increasing green mobility, lowering emissions, and sustaining long-term economic growth. South Africa is also committed to international agreements like the Paris Agreement, which establishes targets for reducing greenhouse gas emissions while encouraging resilience to climate change.

3.2.3 Key Initiatives and Collaborations

One of the key projects driving South Africa's green transport objective is the development of green logistics systems. Collaborations with international partners, such as the German Federal Ministry of the Environment, have resulted in new solutions like the Green Logistics Indicator System (GLIX). GLIX assesses freight movement efficiency, reliability, and sustainability to boost economic growth and competitiveness while minimising the impact on the environment.

Furthermore, collaboration between provinces such as Gauteng and KwaZulu-Natal culminated in plans to build Smart Corridors for efficient freight movement. These corridors use technology and teamwork to streamline logistics operations while reducing emissions.

3.2.4 Technological Innovations and Transition

South Africa also embraces technology advancements to help with the move to greener transportation. The Department of Transportation has set aside funds for the first fuel cell bus demonstration project in partnership with local businesses. This study seeks to investigate the practicality of hydrogen fuel cell-powered buses, which have the potential to advance public transportation while reducing dependency on fossil fuels.

Additionally, efforts are being made to increase the adoption of electric cars (EVs) and other low-emission vehicles. Infrastructure developments, such as charging stations, are critical to promoting the wider use of EVs and accelerating the transition to greener transportation options.

3.2.5 Gauteng's Role in Green Transport

Gauteng, South Africa's economic hub, is vital to achieving the green transport goal. The province has launched ambitious projects to alleviate traffic, increase connectivity, and promote sustainable

transportation solutions.

One significant project is the construction of the PWV15 highway, which intends to connect key locations such as the OR Tambo International Airport and the Tambo Springs Freight Hub. This project, funded through public-private partnerships, exemplifies Gauteng's commitment to improving transportation infrastructure while reducing environmental impact.

Furthermore, Gauteng is actively developing green logistics through collaboration with international stakeholders and neighbouring provinces. Initiatives like the GLIX Smart Freight Corridor development and collaborations with KwaZulu-Natal demonstrate Gauteng's efforts to optimise freight transportation and minimise emissions.

3.2.6 Undergoing and Planned Initiatives for Green Transport in Gauteng

Looking ahead, Gauteng has several ongoing and planned initiatives to further advance green transport within the province. These include:

Expansion of Public Transit Networks: Gauteng is actively working on expanding its public transit networks to encourage the use of sustainable transportation modes. The Gautrain Management Agency (GMA) is responsible for overseeing the Gautrain system, which serves as a backbone for public
transportation in the province. Ongoing initiatives include the expansion of Gautrain routes to connect more areas within the province and improve accessibility for commuters. Planned expansions will focus on integrating bus rapid transit (BRT) systems and other modes of public transport to create a seamless and efficient network.

Development of EV Charging Infrastructure: To support the widespread adoption of electric vehicles (EVs), Gauteng is investing in the development of EV charging infrastructure. The Gauteng Department of Roads and Transport, in collaboration with municipalities and private partners, is responsible for implementing this initiative. Ongoing efforts include the installation of EV charging stations in key locations such as shopping centres, office parks, and residential areas. Planned initiatives involve expanding the charging network to cover more areas and increasing the availability of fast-charging stations to reduce charging times for EV owners.

Promotion of Cycling and Non-Motorised Transport: Gauteng is promoting cycling and non-motorised transport as sustainable alternatives to traditional modes of transportation. The Gauteng Department of Roads and Transport, along with municipal authorities, is responsible for implementing cycling infrastructure projects such as dedicated bike lanes, bicycle-sharing programs, and secure bike storage facilities. Ongoing initiatives focus on improving safety and accessibility for cyclists, while planned projects aim to expand the cycling network and integrate non-motorised transport into existing transportation systems.

Integration of Smart Mobility Solutions: Gauteng is embracing smart mobility solutions to optimise transportation efficiency and reduce emissions. The Gauteng Department of Roads and Transport, in collaboration with technology providers and research institutions, is responsible for implementing smart mobility initiatives. Ongoing efforts include the deployment of intelligent traffic management systems, real-time traffic monitoring, and smart parking solutions to alleviate congestion and improve traffic flow. Planned initiatives involve further integration of smart mobility technologies, such as connected vehicle

systems and predictive analytics, to enhance transportation planning and operations.

Incentives for Green Transport Adoption: Gauteng is exploring incentives to encourage the adoption of green transportation solutions among residents and businesses. The Gauteng Department of Roads and Transport, in partnership with relevant stakeholders, is responsible for designing and implementing incentive programs. Ongoing initiatives include subsidies for EV purchases, tax incentives for green vehicle owners, and discounts on public transit fares for environmentally friendly modes of transportation. Planned initiatives aim to expand incentive programs to cover a wider range of green transport options and incentivise behaviour change towards sustainable mobility practices.

Gauteng province is undertaking a comprehensive set of existing and planned activities that will improve green transportation and meet sustainable mobility goals. The organisations such as Gauteng Department of Roads, include infrastructure development, technological integration, behavioural incentives, and multimodal transportation solutions to lead the above mentioned projects Through these efforts, Gauteng intends to pave the path for a cleaner and more sustainable transportation future for its residents and visitors.

3.3 Water and sanitation

Introduction

Water and sanitation are fundamental components of a thriving society, essential for public health, economic prosperity, and environmental sustainability. In Gauteng Province, the management of water resources and provision of sanitation services face multifaceted challenges, exacerbated by rapid urbanisation, population growth, and the impact of climate change. To address these challenges and seize opportunities for sustainable development, the Gauteng Sustainable Water and Sanitation Program has been developed. This program aims to implement innovative solutions to enhance water capacity, promote efficiency, and ensure reliable services for residents and businesses across the province.
Within this program, a holistic approach has been adopted, encompassing various key components such as water efficiency measures, rehabilitation of water sources, groundwater management, data-driven decision-making, improved billing systems, and rainwater harvesting initiatives. Each component is strategically designed to address specific challenges while capitalising on opportunities to improve water and sanitation infrastructure, management, and governance in Gauteng.

This introduction sets the stage for a comprehensive exploration of the challenges, opportunities, and proposed interventions outlined in the Gauteng Sustainable Water and Sanitation Program. Through collaborative efforts, innovative strategies, and sustained commitment, this program endeavours to foster a future where access to clean water and sanitation is not only a basic human right but also a cornerstone of sustainable development and inclusive growth in Gauteng.

3.3.1 Key Components of Water and sanitation

Water Efficiency Measures

- Promote water conservation practices through public awareness campaigns. DWS in Gauteng, in collaboration with the Departments of Basic Education and Health, the City of Tshwane, and Rand Water, 2014 hosted a Public Education programme at three Municipalities the City of Tshwane, the City of Johannesburg, and the City of Ekurhuleni. The awareness programme aimed to educate communities about water conservation, water demand management as well as best health and hygiene practices among others.

- Incentivise the use of water-efficient fixtures and technologies in households and businesses.
- Implement smart water metering and monitoring systems to detect and address leaks promptly. Gauteng has adopted a target to curtail water losses from water distribution systems by at least 30%.

Water Sources Rehabilitation

- Restore and protect natural water sources such as rivers, lakes, and wetlands.
- Implement watershed management plans to sustainably manage water catchment areas.
- Groundwater Management:
- Develop sustainable strategies for the use of groundwater resources.
- Implement monitoring systems to ensure responsible extraction and recharge of aquifers.

Water Intelligence Report

- Establish a comprehensive water data collection and analysis system.
- Develop predictive models for water demand and supply to inform decision-making.

Improved Water Billing System

- Upgrade billing systems to accurately reflect water usage and incentivise conservation.
- Implement tiered pricing structures to discourage excessive water consumption.

Rainwater Harvesting

- Promote rainwater harvesting for non-potable uses such as irrigation and toilet flushing.
- Provide incentives or subsidies for rainwater harvesting systems in residential and commercial buildings.

3.3.2 Implementation Strategy

Policy Development

- Formulate policies and regulations that support sustainable water management practices.
- Collaborate with stakeholders to integrate water sustainability into urban planning and development frameworks.

Investment and Financing

- Secure funding for infrastructure investments through public-private partnerships (PPPs) or green finance initiatives.
- Explore innovative financing mechanisms such as water bonds or impact investment funds.
- Capacity Building and Training:
- Conduct training programs for water management professionals on sustainable practices and technologies.
- Build local capacity for monitoring and maintaining water infrastructure.

Technology Adoption

- Pilot and scale up innovative technologies like IoT-enabled water management systems and decentralised treatment solutions.
- Foster partnerships with research institutions and technology providers to drive innovation.

3.3.3 Gauteng Province Baseline Water Balance

Based on data collected in 2021 and 2022, the water balance for the Gauteng Region reveals alarming figures. Non-revenue water (NRW) stands at 637.3 million cubic metres per annum, representing 41.9% of the total water supply, while water losses amount to 507.5 million cubic metres per annum, accounting for 33.4%. These statistics underscore significant challenges in water management and distribution efficiency. The water balance for the Gauteng Region is predominantly influenced by the City of Johannesburg, City of Ekurhuleni, City of Tshwane, and Emfuleni municipalities, which together account for approximately 94% of the demand.

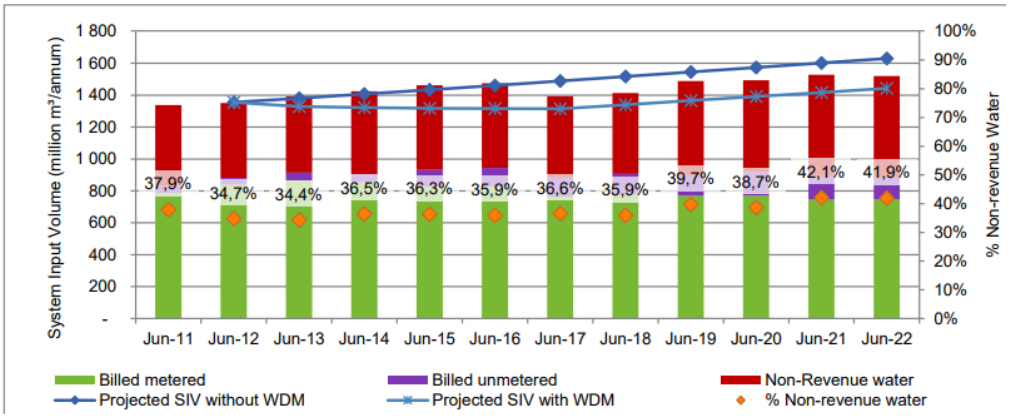
Figure 5: Gauteng Water Balance (Million) M3/Annum

<table>
<tr><td rowspan="5">System Input Volume
=
1520.493
(253 l/c/d)</td><td rowspan="3">Authorised Consumption
=
1012.978</td><td rowspan="2">Billed Authorised
=
883.182</td><td>Billed Metered
=
746.946</td><td rowspan="2">Revenue Water
=
883.182
(58,1%)</td></tr>
<tr><td>Billed Unmetered
=
136.237</td></tr>
<tr><td rowspan="2">Unbilled Authorised
=
129.796</td><td>Unbilled Metered
=
2.7</td><td rowspan="3">Non-Revenue Water
=
637.311
(41,9%)</td></tr>
<tr><td>Unbilled Unmetered
=
127.093</td></tr>
<tr><td rowspan="2">Water Losses=
507.515
(33,4%)</td><td>Apparent Losses
=
104.548</td><td>Apparent Losses
=
104.548</td></tr>
<tr><td>Real Losses
=
402.967
ILI = 7.9</td><td>Real Losses
=
402.967
CARL=24 m³/km/day</td></tr>
</table>

Over the past decade, the System Input Volume (SIV), water losses, and Non-Revenue Water (NRW) in municipalities have shown a consistent upward trajectory. Despite efforts to manage water demand through Water Conservation and Water Demand Management (WC/WDM), the projected demand has been exceeded. Alarmingly, over 40% of Gauteng's water resources fail to generate revenue, while 27.5% is lost due to physical factors such as leaks and pipe bursts. This undermines initiatives aimed at reducing water demand and losses, as outlined by reconciliation targets.

Until 2016, the per capita water consumption in Gauteng exhibited a steady pattern. However, the imposition of water restrictions marked a turning point. Notably, the City of Ekurhuleni stands out as the metropolitan area with the highest concentration of water-intensive industries in South Africa. Currently, its per capita water consumption stands at 235 litres per capita per day (l/c/d).

Figure 6: Gauteng SIV And NRW Trends



3.3.4 Challenges and Opportunities

Challenges

- Water Demand and Supply Imbalance: It's imperative to implement measures to reduce water demand and enhance supply reliability. This could involve implementing water conservation programs, repairing leaks, addressing unauthorised connections, and investing in infrastructure upgrades to mitigate physical water losses.
- Infrastructure Maintenance: Prioritise regular maintenance and upgrades of water infrastructure to ensure its reliability and functionality. Establish robust contingency plans to manage interruptions in water supply effectively, reducing the impact of infrastructure failures on water security.
- Stormwater Management: Enhance stormwater management systems to mitigate the risk of flooding. This may include clearing blockages in drainage systems, improving infrastructure resilience against floods, and implementing measures to regulate stormwater runoff.
- Water Quality Management: Strengthen wastewater management practices to minimise water pollution. Municipalities should enforce regulations on wastewater treatment and disposal to prevent contamination of groundwater, streams, and rivers. Additionally, investing in advanced wastewater treatment technologies can help improve water quality standards.

By comprehensively addressing these challenges through proactive measures, Gauteng can enhance its water security, mitigate risks of water scarcity, and ensure the availability of safe and sustainable water resources for its residents and businesses.

Opportunities

- Water Efficiency Measures: Implement comprehensive water efficiency programs aimed at raising awareness among businesses and households. Encourage the adoption of water-saving technologies and practices to reduce overall water consumption. During periods of drought and low water levels, enforce water use restrictions to manage demand effectively and conserve water resources.
- Infrastructure Development: Invest in the expansion and the improvement of water reservoir infrastructure to meet the increasing demands of a growing population and economy. Prioritise long-term planning initiatives that consider population growth projections and economic development forecasts to ensure infrastructure development aligns with the future needs of the population.
- Diversification of Water Sources: Explore opportunities to diversify the water supply mix, by incorporating alternative sources such as groundwater, wastewater reuse, treated acid mine drainage, and rainwater harvesting. This diversification strategy can enhance water security by reducing reliance on finite surface water sources and increasing resilience to droughts and supply disruptions.

By seizing these opportunities and implementing strategic initiatives, Gauteng can enhance its water management practices, promote sustainability, and ensure the availability of adequate water resources to support the province's development and growth objectives.

3.3.5 Economic Implications

Investing in sustainable water infrastructure is anticipated to reduce long-term economic risks linked to

water stress and pollution, leading to significant cost-saving measures over time. Furthermore, placing emphasis on water and sanitation initiatives will contribute to the development of a skilled workforce in the water sector and support the creation of employment opportunities in technology, manufacturing, and maintenance sectors. Encouraging the growth of water-efficient industries and businesses will attract investment and foster economic growth in Gauteng, with potential spill-over effects to other provinces.

By implementing this comprehensive program - focused on innovative water and sanitation infrastructure, the province can enhance its water resilience, ensure sustainable resource management, and unlock economic opportunities while safeguarding the well-being of current and future generations. This approach aligns with principles of demand-side management, recycling, and reuse, ultimately leading to a secure and reliable water supply for residents and businesses.

To ensure these benefits are realised, the Gauteng department should establish performance indicators and monitoring systems to track progress toward water efficiency and sustainability goals. Regular evaluations should also be conducted to assess the economic, environmental, and social impacts of the program.

3.3.6 Gauteng Province Waste Sector

Gauteng Province hosts numerous waste management facilities and services. To effectively address the region's waste management challenges, the system is divided into various activities:

Waste Collection

Waste collection services in the province are typically provided by municipal authorities or private waste management companies. These services involve the collection of households, commercial, and industrial waste from various locations.

Waste Sorting and Recycling

There are recycling facilities and initiatives aimed at sorting and recycling different types of waste materials such as paper, plastic, glass, and metal. These facilities play a crucial role in diverting recyclable materials from landfills and promoting a more sustainable waste management approach.

Landfills

Gauteng Province has several landfill sites where non-recyclable waste is disposed of. Landfills are managed to ensure compliance with environmental regulations and minimise the impact of waste on the environment and public health.

Waste-to-Energy Facilities

Several municipalities in Gauteng Province have invested in waste-to-energy facilities that convert waste into energy through processes such as incineration or anaerobic digestion. These facilities not only reduce the volume of waste sent to landfills but also generate energy.

Hazardous Waste Management

Proper management of hazardous waste is essential for protecting the environment and human health. Gauteng Province has established facilities and regulations to manage hazardous waste generated by industries, healthcare facilities, and other sources.

Public Awareness and Education

Public awareness campaigns and educational programs play a vital role in promoting waste reduction, recycling, and proper waste disposal practices among residents of Gauteng Province. These initiatives aim to encourage responsible waste management behaviour and reduce the overall amount of waste generated.

Please note that the waste sector is dynamic and subject to change over time. It is advisable to consult local authorities or waste management agencies for the most up-to-date information on the sector beyond 2024.

4. GREEN ECONOMY CONTRIBUTION TO JOBS

South Africa is grappling with a high unemployment rate of 32.9%, or 7.9 million people without work, recorded in the first quarter of 2023. This issue is primarily structural and is compounded by a declining trend in labour intensity. Efforts are underway to improve labour absorption across various economic sectors, with particular focus being placed on the green economy.

The green economy is complex, highly diverse, relatively new, and rapidly evolving, especially in a context such as South Africa. The country is effectively managing the progressive and simultaneous introduction of technologies that are either being enhanced, developed, or commercialised. The economic benefits of many of these technologies may not be fully realised for several years, thereby creating opportunities for the development of emerging industries over time.

Green jobs are central to sustainable development and respond to the global challenges of environmental protection, economic development, and social inclusion (SDGs 8 & 13). The transformation to a greener and low-carbon economy could generate up to 60 million additional jobs across economic sectors (ILO, 2012), for example, the renewable energy sector now employs over 8.1 million people (IRENA, 2016). In the EU, 14.6 million direct and indirect jobs exist in the protection of biodiversity and rehabilitation of natural resources and forests (ILO, 2012). “The formalisation of some 15-20 million informal waste pickers could have significant economic, social and environmental benefits (ILO, 2012).

Maia et al., (2011) indicated that in South Africa, there is a potential for an unfolding green economy that can create approximately 98 000 new direct jobs, on average, in the short term, almost 255 000 in the medium term and around 462 000 employment opportunities in the formal economy in the long term.

Figure 7: Potential Job Creation by Green Economy

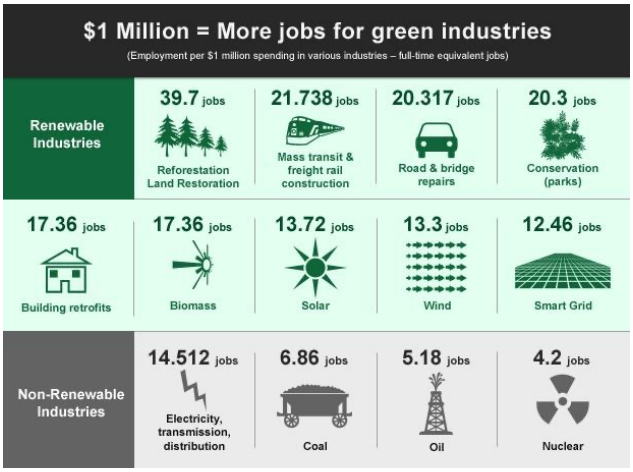
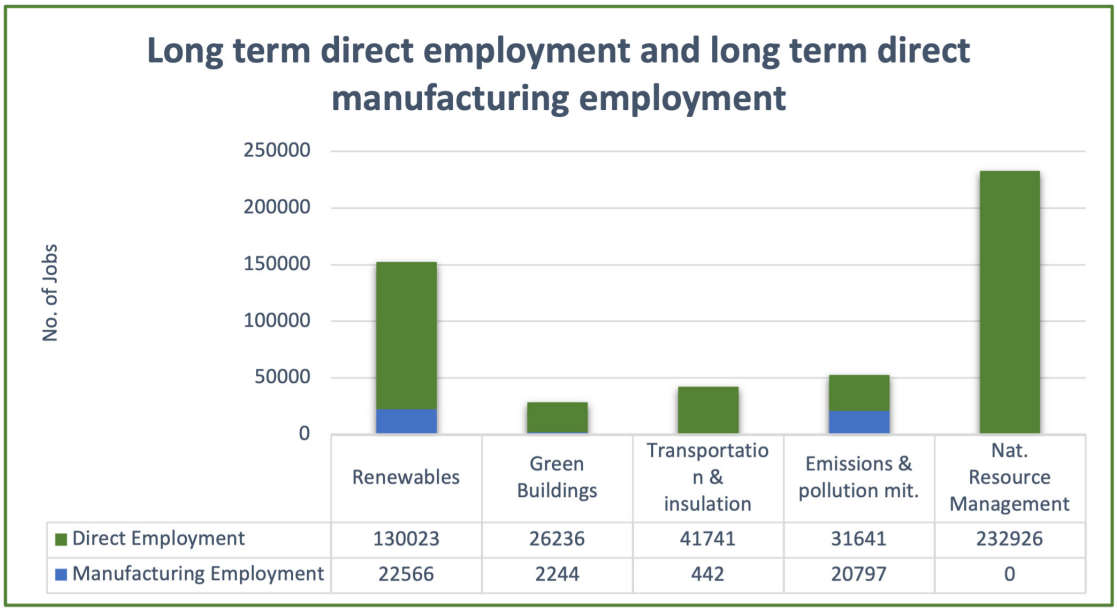


Figure 8: Long Term Direct Employment and Long Term Direct Manufacturing



5. EMERGING OPPORTUNITIES IN GREEN ECONOMY SECTOR

A green economy creates decent jobs if the right policies are in place. According to the Green Economy Inventory South Africa (GEISA), the agriculture, food production, fisheries, and forestry sectors have significant job creation potential. A green economy also contributes to reducing Greenhouse gas (GHG) emissions. Improvements in energy efficiency, diversification of power supply with renewable energy, and the use of low-carbon options in sectors like transport and the built environment are projected to help lower GHG emissions. South Africa has seen significant uptake of innovative low-carbon and resource-efficient technologies, benefiting from its abundant renewable resources.

South Africa's commitment to a green economy is driven by enabling policies and funding for green projects. Increased investment in local production and manufacturing of clean technologies is crucial. Public finance plays a key role in catalysing investment in renewable energy and sustainable transport. Access to private capital and international climate finance must be significantly scaled up for economy-wide transitions. Partnerships among national and global public and private sectors and civil society stakeholders are essential for scaling green investments.

South Africa's green hydrogen strategy, guided by the Hydrogen Society Roadmap and the Green Hydrogen Commercialisation Strategy, provides a framework for a sustainable hydrogen economy. Gauteng aligns with this national vision, leveraging its industrial strengths to address the electricity crisis.

The province plans to promote green hydrogen adoption and support industrial development through a green hydrogen coalition and an implementation roadmap. This approach includes thought leadership, project-based deliverables, and diverse interventions. Successful green hydrogen projects will require collaboration among government entities, financial institutions, and private investors. Gauteng's leadership in green hydrogen is vital for sustainable economic growth, decarbonisation, and energy security.

Given the persistent challenges of energy security and climate change, there is a new opportunity to diversify towards renewable and clean energy. This requires an accelerated shift from coal to renewable energy to meet national GHG reduction commitments. Gauteng faces the challenge of balancing developmental needs with environmental concerns as a highly industrialised province with the highest electricity consumption in the country. Therefore, Gauteng must embrace a diverse energy mix, including green hydrogen, as part of its energy mix and decarbonisation strategy.

6. THE ROLE OF GAUTENG DEPARTMENT OF ECONOMIC DEVELOPMENT AND PROVINCIAL GOVERNMENT

Table 3: The Role Of Gauteng Department Of Economic Development And Provincial

In the previous dispensation (2014 – 2019), the Gauteng Provincial Government through the Office of the Premier and the Department of Economic Development undertook various discussions and engagements in consultation regarding the provincial plans and vision for 2030 with all stakeholders. This process has culminated in the development of the Growing Gauteng Together 2030 (GGT 2030) strategic document. Accordingly, as the guiding document for the next decade in the province, the strategies towards sector development must resonate with the policy direction articulated in the GGT 2030. The GGT 2030, essentially promotes the development of a "seamlessly integrated, socially cohesive, sustainable and economically inclusive Gauteng City Region (GCR). A place of opportunities, supported by a growing economy, smart, innovation-driven and sustainable industries, an accountable, responsive, transparent and clean government, and a healthy, active citizenry" (GGT 2030: 2).
The GGT2030 plan of action is about executing the seven priorities with specific 162 interventions towards the Gauteng of our dreams, "The Gauteng We Want".
The GGT2030 plan of action, sets out the vision for the Gauteng of 2030, guided by the principles and priorities contained in the Freedom Charter, the NDP, the Manifesto, and work carried out to date as part of Gauteng's Transformation, Modernisation and Reindustrialisation (TMR) programme. It is also guided by the following overarching policy, strategies, commitments and policy directives:
At an international level, the Sustainable Development Goals (SDGs), the New Urban Agenda (NUA), the Paris Climate Agreement (COP 21), and the AU's Agenda 2063.
At a national level, the Medium-Term Strategic Framework (MTSF), the Integrated Urban Development Framework (IUDF) and the National Spatial Development Framework (NSDF).

At a provincial level, the Gauteng Spatial Development Framework (GSDF) 2030 and the Gauteng City Region Integrated Infrastructure Master Plan (GIIMP).
Separate water services authority from water service providers as part of efficiency improvements
Compete in the coming years the major dams and water schemes to ensure sustainable access to water for a growing population
At a local level, Municipal Growth and Development Strategies, Integrated Development Plans (IDPs) and Spatial Development Frameworks (SDFs).

For the development of the sector and purposes of integration with this policy framework, the key components for consideration under this strategy are unemployment, climate change, unsustainable growth and economic crises, Inequality, and lack of decent work.

Considering the objectives of the GGT 2030 as articulated above, all relevant policies and strategies should be aligned and redesigned to directly target employment creation if necessary. The current focus of targeting higher economic growth to create employment should be replaced with strategies which target an increase in employment to create higher economic growth.

7. PROPOSED INTERVENTIONS

Table 4: Post Intervantions

The proposed interventions for the sector focus on the supply side. This entails:	An active industrial and sectoral development approach by the province that promotes and encourages the development, investment and support of various sectors aimed at promoting:
Removing obstacles and bottlenecks that hinder the efficient operation of a network economy.	Decent employment creation
Encouraging innovation, research and development and knowledge about the economy.	Export-oriented growth.
Increasing capacity and capabilities which in turn increases opportunities for increased income.	Localisation. Infrastructure investment Innovation and the knowledge economy
Strengthening localised factors of production and economic development to ensure increased competitiveness and productivity.	Energy efficiency (green), renewable energy and sustainable resource utilisation
Ensuring optimal resource reallocation and sustainable resource usage	• Support to large highly industrialised sectors and smaller less industrialised producers

Enterprise development (including access to finance through other government agencies) by encouraging both formal and informal sectors through SMMEs and Cooperatives and Skill development and tr

The Interventions proposed herein will assist the Department to assume a facilitation and sector support role. These projects are implementable within the Department, its agencies, and strategic partners.

7.1. Resource Efficiency Programme

The objective of the programme is to promote greening within the productive sectors to reduce carbon footprint by retrofitting old technology with energy efficiency technology and installation of clean energy in Gauteng

South Africa is currently experiencing severe power shortages, as the national utility ESKOM struggles with an ageing and failing electricity system that cannot meet the energy demands of the economy. Additionally, the country's electricity generation system is among the worst polluters globally, significantly contributing to greenhouse gas (GHG) emissions. The rapid increase in electricity generation and distribution costs has also made electricity prices unbearable. These shortages and high electricity prices severely impact Gauteng, the country's largest economy and industrial hub, disrupting productivity and reducing the competitiveness of Small, Medium, and Micro Enterprises (SMMEs) in key economic sectors.

The rampant looting in Gauteng and Kwa-Zulu Natal in July 2021 further exacerbated the situation, resulting in vandalism of property and damage to critical infrastructure, including energy facilities. The repair and recovery process has been slow and challenging, particularly for SMMEs. The Resource Efficiency Programme (REP) aims to support SMMEs and businesses in productive sectors by

providing green/clean energy and energy efficiency technologies to alleviate energy costs and mitigate the effects of load shedding and power disruptions. This initiative also supports economic recovery efforts and helps the Department meet its Annual Performance Plan targets related to energy.

Intensified load shedding by Eskom continues to undermine efforts to strengthen energy security in Gauteng, which is crucial for achieving the GGT2030 vision. Load shedding has devastated key economic sectors like manufacturing, hospitality, tourism, mining, and agriculture. In response, the Department of Economic Development has been tasked with designing, developing, implementing, and coordinating projects to support both large businesses and SMMEs. Additionally, the GDED commissioned the CSIR to develop a business case for the best suite of alternative energy solutions to support SMMEs in Gauteng.

The programme will also rely on energy audits and energy efficiency assessments to identify alternative energy solutions and provide immediate relief to businesses. Implementation will be in collaboration with GDED partners, leveraging their technical skills and capacity to maximise the programme's impact. The anticipated outcomes of the programme include: Supporting SMMEs with energy efficiency and renewable energy technologies to reduce energy costs and mitigate load shedding.

7.2 Creating Green Job Opportunities

- Providing market access/support for SMMEs offering energy efficiency and renewable energy solutions.
- Promoting and transitioning to alternative, renewable, and clean energy solutions to reduce environmental impact and mitigate climate change, setting an example for others.

7.3 Microgrid Enegry Programme

The objective of this programme is to undertake a pre-feasibility study in support of Microgrid partners.

Energy-intensive sectors in Gauteng, such as mining, chemicals, manufacturing, and automotive industries, are significantly impacted by ongoing power shortages. Additionally, the component manufacturing sector faces the threat of green trade tariff barriers from major trading partners like the European Union, the United States, and key markets in East Asia. These sectors, crucial to the country's GDP, must urgently implement decarbonised energy programs to mitigate these threats and sustain their international trade capabilities.

The Microgrid Energy Programme, led by the Green Economy workstream within the Gauteng Department of Economic Development (GDED), aligns with national policies and the Economic Reconstruction and Recovery Plan. Specifically, it focuses on increasing the availability of clean energy. In Gauteng, the microgrid initiative supports the GGT2030 apex programme, particularly within Special Economic Zones and partnerships with private sector entities, such as the MOA with Sasol (PTY) LTD, to foster new clean energy technologies and high-growth sectors like hydrogen. It also aims to involve township Independent Power Producers (IPPs), linking to Township Economy Programmes.

Accelerating the integration of alternative and cleaner energy technologies through smart microgrids will contribute to a decentralised power system, enhance energy security, and decarbonise the grid. The proposed microgrid initiative will form a coalition of large power users, private companies across the energy value chain, and stakeholders to support reliable, green industrial baseload power in Gauteng. The Gauteng Provincial Government, in partnership with the public and private sectors, will sponsor, support, and facilitate these energy projects.

To address energy shortages, the Department of Economic Development issued a Request for Information (RFI) for microgrid development in Gauteng's economic sectors. Following a thorough review, sixteen submissions were shortlisted for further development and partnership. The Department is finalising these partnerships to advance the identified energy projects.

As part of the microgrid energy programme, the Department has signed an MoU with several microgrid companies to enable alternative energy solutions. A pre-feasibility study is underway with some companies to determine the suitable energy mix, conduct a suitability analysis, and assess the technical, economic, social, and environmental viability of the projects. This study will also evaluate the financial and economic feasibility of adopting various renewable energy technologies.

7.4 Green hydrogen strategy

The purpose is to set out the policy context, drivers and recommended provincial approach to green hydrogen strategy (GH2). South Africa holds a global competitive advantage in green hydrogen (GH2) production, which is crucial for the country's transition to a low-carbon-based economy. The three primary GH2 commercialisation pathways are export, decarbonisation of mobility, and industrial supply chains. Domestic demand applications will drive half of South Africa's GH2 production. Gauteng, being the primary energy-consuming region, is the major transport hub with the largest share of heavy-load vehicles and numerous energy-intensive, hard-to-abate industries. Consequently, Gauteng's economy is significantly impacted by decarbonisation efforts, including GH2 commercialisation, which will, in turn, influence the success of South Africa's overall transition to a low-carbon economy. Despite GH2's importance, the Gauteng Government currently lacks an explicit policy position or approach to GH2,

as well as commentary on its impact on regional industry, the desired energy mix, or opportunities for black industrialism.

Compared to various other countries with high renewable potential, South Africa has proactively invested in creating hydrogen-driven economies relatively early. The 2004 Hydrogen South Africa Strategy marked significant progress in hydrogen research and development, leveraging national competitive advantages such as abundant renewable energy resources, platinum-group metal reserves, and strategic trade partnerships.

Recent national policies have gained momentum with the publication of the Hydrogen Society Roadmap 2021, the South Africa Hydrogen Valley Final Report 2021, and Green Hydrogen Commercialisation Strategy 2022. Additionally, a series of industry reports have explored the potential for green hydrogen in South Africa, covering detailed national market analyses, industry scenario planning, and its future potential as an export commodity and in sustainable aviation fuel.

South Africa's investment in GH2 is supported by its unique competitive positioning. The country possesses renewable energy resources, land availability, platinum group metals, port infrastructure, skills and capabilities, and potential large-scale carbon storage facilities derived from depleted gas fields. These assets, combined with established strategic trade relationships with major GH2 importers such as Japan, South Korea, and the European Union, place South Africa in a strong position in the global GH2 market.

The Economic Reconstruction and Recovery Plan advocates for green hydrogen (GH2) production technologies to mitigate the trade effects of the global decline in demand for platinum in catalytic converters. The 2022 Just Energy Transition Strategy positions green hydrogen as central to capitalising on opportunities arising from South Africa's shift towards 'net-zero' and addressing the challenges industries face during this transition.

8. CONCLUSION

The Gauteng Provincial Government's commitment to the Growing Gauteng Together (GGT2030) road map represents a transformative vision for 2030, aiming to position Gauteng as a leader in sustainable, innovation-driven economic growth. By aligning with the principles of the National Development Plan (NDP) and the Transformation, Modernisation, and Reindustrialisation (TMR) programme, Gauteng is set to leverage its advanced industrial infrastructure and strategic regional position to drive green economy initiatives. The shift towards greener technologies and industries is not just a policy choice but a necessity to address the persistent challenges of energy security, economic recovery, and climate change.

Historical reliance on fossil fuels has led to significant environmental and economic vulnerabilities, particularly highlighted by the impacts of load shedding and economic stagnation exacerbated by the COVID-19 pandemic.
The proposed green economy initiatives, including the Resource Efficiency Programme, Microgrid Energy Programme, and the Green Hydrogen Strategy, underscore a comprehensive approach to fostering sustainable development.

These initiatives are designed to enhance energy efficiency, promote renewable energy adoption, and support SMMEs, ultimately contributing to job creation and economic resilience.

Gauteng's strategy to embrace green industrialisation is underpinned by robust policy frameworks and strategic collaborations across the public and private sectors. By prioritising green growth, the province aims to mitigate the adverse effects of climate change, reduce greenhouse gas emissions, and promote resource efficiency. The envisioned transition to a green economy will not only address environmentalchallengesbutalsocreateneweconomicopportunities,positioningGautengasacompetitive, sustainable industrial hub within the Southern African Development Community (SADC) region and beyond.

In conclusion, the Gauteng Provincial Government's roadmap and sector plans reflect a strategic, forward-thinking approach to economic development. By integrating sustainability into its core objectives, Gauteng is set to lead the way in building a resilient, inclusive, and prosperous green economy. This transition will require continued commitment, innovation, and collaboration among all stakeholders to achieve the ambitious goals of GGT2030, ultimately transforming Gauteng into a model of sustainable development in South Africa and the region.

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GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

2024

ICT and Digital Sector Development

SECTOR PLANS



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1. INTRODUCTION

South Africa boasts one of the largest information and communications technology (ICT) markets in Africa, establishing itself as a technological and innovation hub on the continent. The country's IT sector encompasses software development, hardware manufacturing, telecommunications, cybersecurity, digital services, Fintech, and digital payment solutions. As a significant contributor to South Africa's GDP, the ICT and electronics sector is both advanced and rapidly evolving. Several international corporations, including IBM, Google, Microsoft, Intel, Systems Application Protocol (SAP), Dell, Amazon Web Services, Novell, Meta, and HP, have established subsidiaries in South Africa, leveraging it as a regional hub and a supply base for neighbouring countries. Additionally, South Africa is home to vibrant start-up communities in Cape Town and Johannesburg.

South Africa's ICT products and services industry is penetrating the rapidly expanding African market. South African companies and locally based subsidiaries of international companies have supplied most of the new fixed and wireless telecom networks established across the continent in recent years.

The Gauteng Department of Economic Development is tasked with advancing key sectors within the province. The ICT and Digital Services Sector Development Plan aims to enhance the competence and competitiveness of this sector. The government is committed to achieving significant outcomes in job creation, investment, enterprise development, and socio-economic impact. This plan addresses the challenges outlined in the National Development Plan 2030 and is driven by the need to understand the target sub-sectors and industries, their unique characteristics, and the global competitiveness of the ICT industry in Gauteng.

2. POLICY AND STRATEGIC ALIGNMENT

The Gauteng Provincial Government (GPG) has adopted the Growing Gauteng Together (GGT) 2030 to contribute to national development and deepen the implementation of the NDP. Aligned with the Radical Transformation, Modernisation and Re-industrialisation (TMR) programme, the Gauteng Department of Economic Development (GDED), through its Sector and Industry Development (SID) unit, has developed 11 sector strategies to advance the province's re-industrialisation agenda. Among these, manufacturing-related sub-sectors have been identified as key drivers of re-industrialisation and overall sector growth. GDED has also identified the ICT and Digital Services sector as one of the 10 high-growth sectors, strategically linked to Financial and Global Business Services (GBS)primary industries, manufacturing, and green economy. This sector is a pivotal element in the revitalisation and development of the Gauteng township economy. As a game changer for the province, the ICT and Digital Services sector has a crucial role in enabling growth, creating jobs, building infrastructure, and supporting development across industries.
The GGT2030 strategic goals specifically aim to drive spatial and economic transformation, particularly in the townships by creating and facilitating employment opportunities for all classes of unemployed and disadvantaged citizens. This strategy focuses on coordinating industrial initiatives to ensure they align with the products and services required by the 10 high-growth sectors.

3. STRATEGIC OBJECTIVES

The Sector Plan is developed to serve the following main purpose:
To provide a framework for implementing strategic interventions in the ICT and Digital Services sector. This plan focuses on identifying new and existing initiatives within the province, based on

Remodelling the GGT2030, to fast-track and capitalise on investment and economic development opportunities. It supports comprehensive, integrated planning that considers a broad range of interconnected economic, social and environmental factors while promoting enterprise development and accelerating job creation in the Gauteng Province.

In response to global and domestic challenges, the Gauteng Provincial Government has adopted the GGT2030, a plan of action that is part of Gauteng's Transformation, Modernisation, and Reindustrialisation programme. GGT2030 aims to support the President's initiatives on economic recovery, investment, industrialisation, youth employment, and the township economy, focusing on sectors with high employment potential. According to the GGT2030 plan, the ICT and Digital Services sector is crucial for driving the economic transformation agenda, offering significant employment and economic growth potential.

The Gauteng government recognises the opportunities for developing the provincial economy and industries along a five-corridor development approach and within its townships, leveraging the unique value proposition of each corridor. The Gauteng Information Communication Technology and Digital Development Plan (GICTDDP) provides a framework to tailor the plan within this context. ensuring that it addresses the evolving economic, political, social and technological landscape.
The primary challenges that the GICTDDP aim to address are as follows:

- How can the GPG facilitate job creation within the Digital/ICT sector?
- How can GPG support the development of Black industrialists in the Digital/ICT sector?
- How can the GPG deliver Township Economy Revitalisation by advancing the Digital ICT sector?
- How can the GPG enhance the ICT sector to lower business operational costs within the GCR?
- How can GPG Digital/ICT skills strategy identify the necessary digital skills to drive and sustain digital transformation?

Access and connectivity to ICT are critical for integrating developing and transitioning economies into the global knowledge society. ICT supports the social, economic, and cultural integration of their societies and lays the foundation for enhancing efficiency and growth in key sectors. ICT is indispensable due to its universal application across the economy and society at large, serving as an essential tool for improving access to information, education, finance, healthcare, and other public services. Furthermore, its utilisation creates jobs, protects the environment, mitigates natural disaster risks, and ensures the sustainable use of natural resources and food production. To enable Gauteng Province, an up-to-date, reliable, and secure ICT infrastructure is essential. Consequently, the department is revising the Gauteng Digital/ICT Development Plan (GDICTDP) based on various inputs.

The development plan aims to provide concrete, actionable strategies in clearly defined segments of the Digital and ICT sector where GPG can have the most significant impact, with a focus on existing initiatives within the province. Additionally, the plan evaluates major interrelated programmes and projects, particularly those managed by the Government and its implementing agencies.

4. RATIONALE FOR DEVELOPING THE PLAN

The GDICTDP analysis has been developed in alignment with the Gauteng Economic Recovery Plan 2020, GGT2030, NDP 2030, IPAP 2018, and the draft 2020 Gauteng Digital and ICT Market

Quantification Report. The Government acknowledges the economic challenges South Africa faces and the need for urgent action. In response to the challenges posed by the COVID-19 pandemic, the GPG remodelled the GGT2030 plan of action as part of the economic reconstruction and recovery effort. The economic recovery plan focuses on four key areas: a major public employment drive, energy security, critical massive infrastructure development, and the industrialisation of the economy.
Policy Alignment

- GGT2030 Plan: Aligning with the GGT 2030 vision, the strategy aims to contribute to economic recovery, investment, and industrialisation, with a focus on high-employment potential sectors.
- National ICT Policy White Paper of 1996: This policy aims to transform the South African economy into a knowledge-based economy, thereby increasing GDP and creating new job opportunities.
- Legislation: Compliance with the Cybercrimes Act, Electronic Communications Act, and the Protection of Personal Information Act (POPIA) is essential.
- The ICT B-BBEE Sector Code: This code mandates a minimum of 30% black ownership for compliance with government procedures and incentive schemes.
- Enterprise Development: Large IT companies support the growth of black-owned hardware and software resellers through enterprise and supplier development initiatives.

The plan aims to capitalise on emerging opportunities presented during and post-COVID-19 pandemic by reducing our reliance on imports and fostering local industrial development. This will enable the creation of new job opportunities through the adoption of appropriate policies and development-focused interventions. The strategy includes advancing infrastructure, enhancing skills, building the capacity of SMMEs, and unlocking the potential of township enterprises by leveraging infrastructure development as a catalyst to drive economic growth in identified high-growth sectors.

5. METHODOLOGY

5.1 Approach

The development approach for the Gauteng ICT sector plans employed qualitative methods, primarily gathering data from literature reviews. The key activities included:

- Desktop review: Conducted literature review to prepare a comprehensive profile of the sector, examining documents such as NDP 2030, GGT2030, Gauteng Economic Recovery Plan 2020, and Gauteng ICT and Digital Market Study 2020.
- Statistical analysis review: Analysed statistical data from sources including the SA Connect reports retrieved from the DOC Government website, Sector Skills Plan 2020 - 2025 (Finalised on 1st August 2019, and updated 2022), JCSE-IITPSA ICT skills Survey (12 edition, 4th Report on the state of the ICT Sector in South Africa, the Africa Digital Infrastructure Market Analysis, 2023 WIP Report, ICASA's report on the state of ICT sector in SA 2023, and the WoW the Information Technology (IT) industry in South Africa 2024 report.

6. INDUSTRY MARKET ANALYSIS

6.1 Definition of The ICT Sector

ICT is fundamental to many aspects of modern life. ICT encompasses a diverse range of technological tools and resources used to transmit, store, create, share, or exchange information. This includes computer hardware, software, network infrastructure, video conferencing, telephones, and mobile phones. In South Africa, various companies supply ICT services including internet service providers, telecommunications suppliers, information technology providers, media and broadcasting companies, software developers, and electronics manufacturing firms.

The term 'Digital' has been adopted as a key descriptor of the new technologies driving

the Fourth Industrial Revolution (4IR). Thus, digital' refers to next-generation technologies and capabilities such as Predictive and Data Analytics / Science, Artificial Intelligence (AI) Blockchain, Machine Learning (ML), Robotic Process Automation (RPA), Smart City Technology, the Internet of Things (IoT), 3D printing, Quantum Computing, and Nanotechnology. Additionally, ICT/Digital supports back-office operations by providing data storage, information management, email and mobile communications.

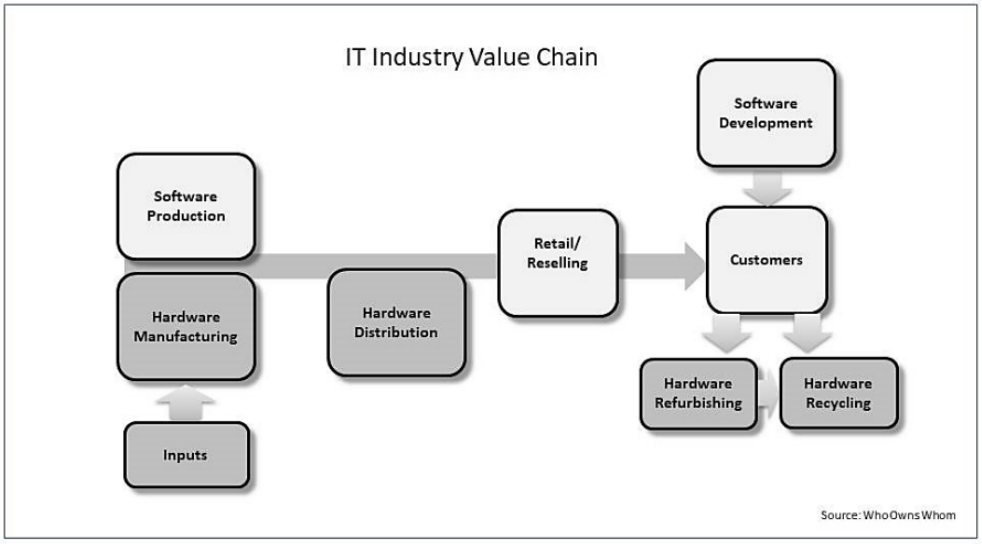
The sector experienced significant growth during the pandemic, driven by increased demand for digital transformation, AI, and IoT technologies.

6.2 ICT Value Chain Analysis

IT services are essential across all sectors to enhance efficiency and competitiveness. These sectors include financial services, mining, manufacturing, petrochemical, agriculture, media and communications, travel, transportation and real estate, and all levels of government. Electronic devices are ubiquitous, encompassing mobile phones, tablets, computers, robots, vehicles, production lines, security systems, kitchen appliances, and television sets.

The value chain for consumer electronics, computers, and communication devices includes raw materials and inputs, component manufacturing, final product assembly, and sales. Value-adding activities outside the manufacturing process include research, product and process development, design, marketing, and after-sales services. Figure 1 below illustrates the IT Industry Value Chain.

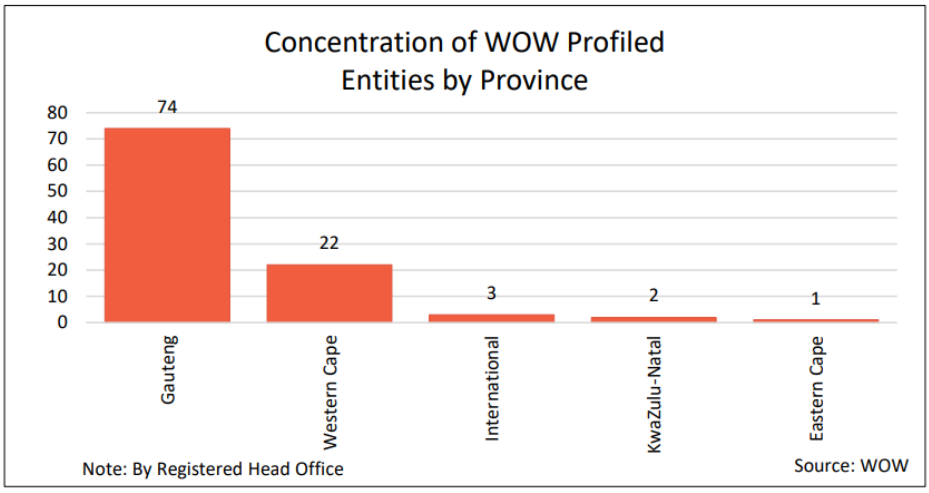
Figure 1: The IT Industry Value Chain



- Hardware Companies: Include OEMs and vendors that resell, install, and upgrade hardware.
- Software Companies: Include developers of original products and startup developers.
- IT Services: Provided by consulting companies offering IT-specific and general management services.
- Telecommunications: Provides the networks that connect various devices and services
- Business Spectrum: The sector includes a wide range of businesses, from large multinationals offering comprehensive suites of services to microenterprises and tech startups specialising in app development.
- Innovation and Technology: New developments, innovations, and technologies dominate the products and services.
- Market Dynamics: The sector is characterised by ongoing mergers, acquisitions, vendor partnerships and licensing agreements aimed at expanding services portfolios, strengthening market presence and entering new markets.

Major Companies:
Adapt IT, Altron, Alviva Holdings, Business Connexion, 4Sight Holdings, and Mustek.
Key hardware retailers include Massmart, Incredible Connection, HiFiCorp, and Matrix Warehouse.

Figure 2: Geographic Locations



Geographic Locations:

- Primary Hubs: Gauteng and the Western Cape are the main hubs for ICT companies.
- Major cities: Johannesburg and Cape Town serve as the primary headquarters for tech startups receiving venture capital funding.
- Venture Capital: In 2022, tech startups headquartered in Johannesburg received (26.9% of venture capital funding by value and 29.6% by number., While those in Cape Town received 43.6% of funding by value and 46.0% by number, according to the Southern African Venture Capital Association (SAVCA).

Solutions Available to the National Economy

- IT services are offered across all sectors to enhance operational efficiency and competitiveness.
- These sectors encompass financial services, mining, manufacturing, petrochemicals, agriculture, media and communications, travel, transportation, real estate, and various levels of government.
- Electronic devices are integral to numerous activities and include mobile phones, tablets, computers, robots, vehicles, production lines, security systems, kitchen appliances, and television sets.

Available Mobile Network Solutions to the National Economy

- The South African market comprises five Mobile Network Operators (MNOs)
- Vodacom and MTN dominate South Africa's mobile market with over 70% market share, supported by a smaller competitor such as Cell C, Telkom Mobile, and Rain.
- Mobile Virtual Network Operators (MVNOs), including FNB Connect and Standard Bank Mobile offer mobile services by utilising the networks of other operators.
- Internet Service Providers (ISPs) such as Mweb, Webafrica, and Dimension Data also contribute to the mobile network landscape.

Table 1: ICT Sector Value Chain and Key Focus Areas for Gauteng

Segment	Description	Example Of Activities
Hardware Companies	Activities involving raw materials and inputs, component manufacturing, final product assembly, and sales	• Original Equipment Manufacturers (OEMs) that produce an original product under their brand names. • Vendors that resell, install, and upgrade hardware, either as licensed resellers or retailers.
Hardware refurbishers and recyclers	Activities include the collection of electrical and electronic waste (e-waste)	• Formal or informal collectors who gather e-waste, pre-process it, and sell it to recyclers or e-waste traders. • Recyclers who extract valuable materials fractions from e-waste for processing or treatment, to be re-used as raw materials in production processes. • Refurbishes who either import second-hand equipment or repair and refurbish equipment recovered from the waste stream for sale in the second-hand market.
Software Companies	Activities that adding value to final products outside of the manufacturing process	• Software R&D: • Software and app developers who produce original products under their brand names. • Startup software and application developers. • Vendors who resell, install, and upgrade software, either as licensed resellers or retailers. Product design and process development.

IT service companies	Activities include consulting and management services	• Offering IT-specific consulting services. • Incorporate technology and software solutions such as project management and systems.
The telecommunications	Activities involving devices and infrastructure supporting telephony, internet, and broadband.	• Networks that connect everything via fixed line, wireless, satellite, fibre optic cable or microwave.
Consumer electronics, computers, and communication devices	Activities that add value to final products outside of the manufacturing process	• Include research, product and process development, design, marketing, and after-sales services.

6.3 GLOBAL & REGIONAL OVERVIEW OF THE ICT SECTOR

As reported by GDED (2019) and in a Frost & Sullivan White Paper (2018), South Africa was benchmarked against developing economies and emerging countries using data from the 2019 IMF World Economic Outlook. Leading developing economies in digitalisation include Brazil, Chile, India, Malaysia, Singapore, and South Korea. Advanced economies in this field encompass Australia, Canada, China, France, Germany, Ireland, Japan, the United Kingdom, and the United States. According to the industry research dated 21 April 2022, the global ICT market is expected to grow rapidly between 2023 and 2030. This expansion is anticipated due to a stable growth rate and increasing adoption of strategic initiatives by major players in the industry.

Highlights from a 50-country sample of the digital economy:

- South Africa ranked 37th among emerging countries with a GDP of $371.
- Advanced economies account for 18.4% of global GDP compared to 10% of GDP in developing economies, with the USA leading at 35% and China at 13%.
- The combined revenue of Africa's regional digital economy was R36.5 trillion ($2.5 trillion) in 2016, according to the World Bank
- Among a 54-country sample of regional developing economies, South Africa is the second-largest economy in Africa, with Nigeria leading at $594 billion GDP, followed by SA at $341 billion GDP.

South Africa has a more diverse economy compared to many of its African counterparts. It is also considered to have one of the largest and most advanced ICT sectors in the region, in terms of infrastructure and service adoption maturity.

6.3.1 Global Digital and ICT Market

Technology plays a crucial role in globalisation by making communication and trade faster, cheaper, and more efficient. The Internet has revolutionised the ways people and businesses interact, enabling instant connections and the sharing of information, ideas, and resources. This has accelerated the growth of the global economy and improved the quality of life for people worldwide. ICT has introduced new ways of creating livelihoods and has been instrumental in reducing poverty through

its increasing diffusion year by year.

Global digital economy - According to Statista Research Department (6 August 2023), spending on digital transformation (DX) was projected to reach $1.6 trillion in 2022. By 2026, global digital transformation spending is forecasted to reach $3.4 trillion. The Digital Cooperation Organisation report (Digital Economy Trends 2024) anticipates key trends including Artificial Intelligence, trust economy, digital reality, cyber security, smart ecosystems, and green economy.

According to the GDED (2019) report, the digital revolution is rapidly disrupting businesses, consumers, and countries on a global, regional, national, and provincial scale. The 2023 Gartner Hype Cycle identifies twenty-five essential emerging technologies aimed at assisting enterprise architecture and technology innovation leaders to:

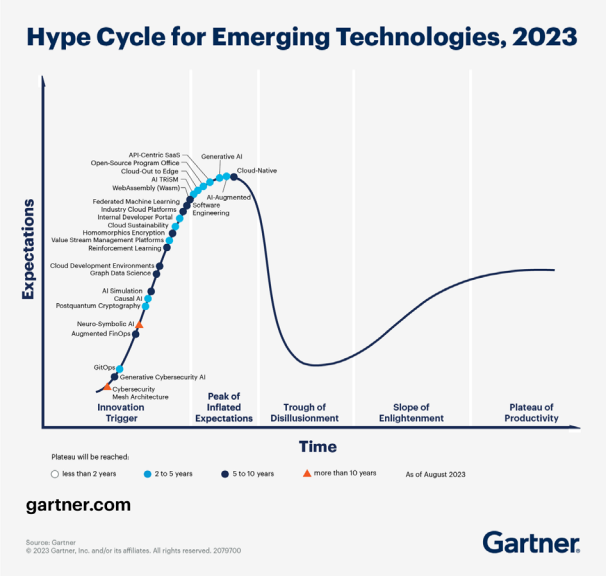
a. Evaluate the business impact of emerging technologies.
a. Examine and explore potentially transformative technologies.
a. Strategise how to benefit from these technologies.

These technologies are expected to significantly greatly impact business and society over the next two to ten years, particularly enabling CIOs and IT leaders to fulfil the promise of digital business transformation. The 2023 Gartner Hype Cycle Four highlights four themes:

- Emergent AI
- Developer Experience (DevX)
- Pervasive cloud
- Human-centric security and privacy

As illustrated in Figure 3 below, twelve emerging technologies are anticipated to mature within the next two to five years. Eleven of these technologies will reach maturity within two to ten years, while two will take more than ten years to fully develop.

Figure 3: Gartner Hyper Cycle for Emerging Technologies, 2023

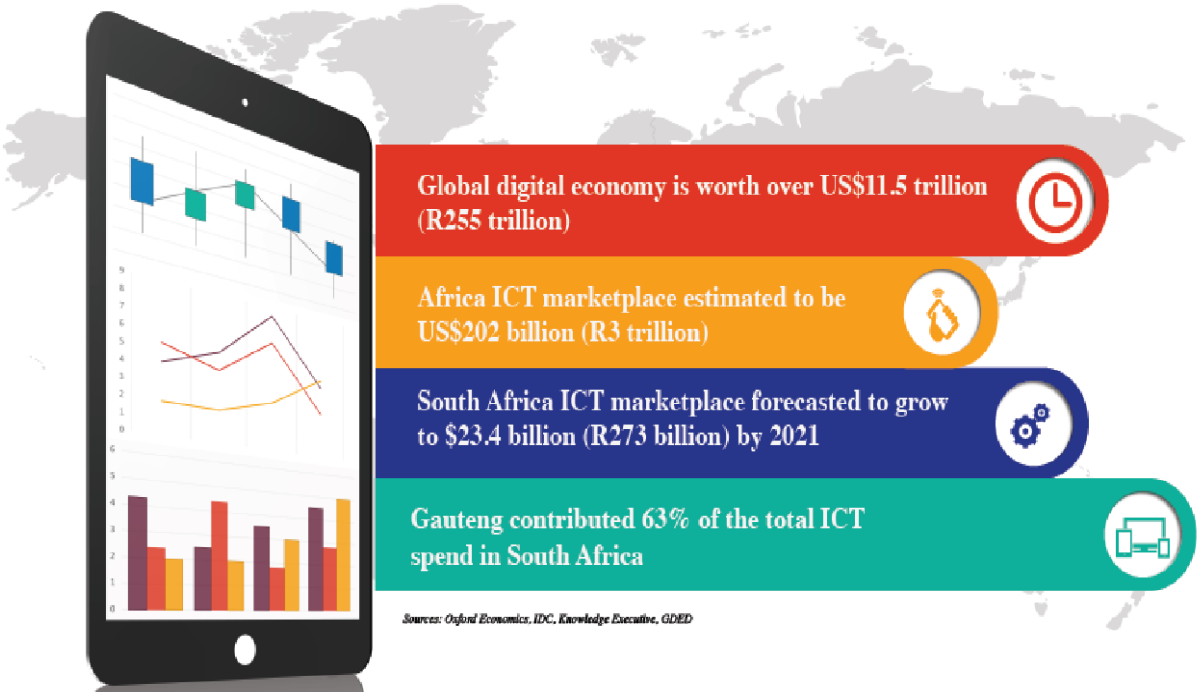


A Gartner Hype Cycle offers an objective map that aids in understanding the actual risks and opportunities of innovation. It helps to avoid the pitfalls of adopting something too early, giving up too soon, adopting too late, or hanging on too long. Every Hype Cycle comprises five phases, which are described in Table 2 below.

Table 2: 5 phases of the Hype Cycle

Phase	Description
The innovation trigger	This stage begins with an event, such as a technological breakthrough or a product launch, sparking widespread interest and discussion.
The peak of inflated expectations	During this phase, product usage increases amid significant hype, though concrete evidence of the innovation's effectiveness is still lacking.
The trough of disillusionment	At this point, initial excitement fades as early adopters report performance issues and low Return on Investment.
The slope of enlightenment	Here, early adopters start to recognise initial benefits and others begin to comprehend how to adapt the innovation to their organisations.
The plateau of productivity	This stage marks the point at which more users experience tangible benefits, and the innovation becomes mainstream.

Figure 4: ICT Landscape



Source: Oxford Economics

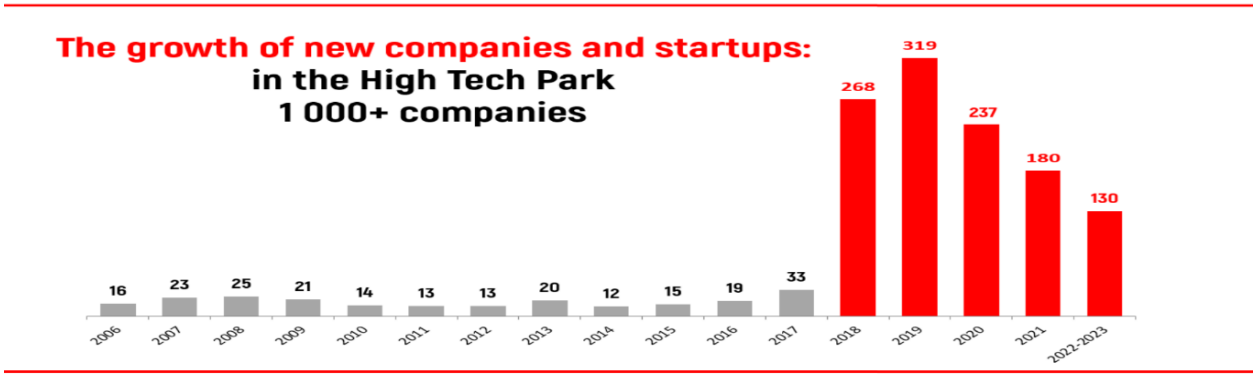
The success of a digital economy relies on vertical sectors embedding digital and ICT technologies in production processes to drive inclusive economic growth, and development. Key highlights include:

- The global ICT market was valued at $341.64 billion in 2022 and is projected to grow at a compounded annual growth rate (CAGR) of 11.26% reaching $582.33 billion by 2027.
- The largest manufacturers of enterprise ICT worldwide include Dell, Two Connect LLC, Technogi, Adobe, Amazon Web Services, Microsoft, Altoros, Oracle, Apple, Google, IBM, HP, PSL Corp, ClickIT Smart Technologies, Valtech (formerly Nonlinear Digital), SAP.
- In a high digitalisation scenario, accelerating investment into new digital and ICT technologies is forecast to increase revenue, contributing an estimated R24.7 trillion (USD1,7 trillion) boost to global GDP by 2025
- Telecommunications - According to the World Economic Forum (WEF), telecommunications is at the forefront of digital transformation representing R31,2 trillion (USD 2 trillion)
- Manufacturing - The WEF predicts that the value of digital transformation in the automotive

industry will be ZAR 45.3 trillion (USD3.1 trillion) by 2025

- Current and future development experiments - These include a network of balloons in the stratosphere to extend connectivity to remote areas, quantum cryptography communication and quantum computers and Blockchain-as-a-service (BaaS) platform.
- The performance indicators - Decree No. 8 specifies that during the COVID-19 pandemic in 2020, the sector continued to grow, reaching $2.735 billion. In 2021, Hi-Tech Park exports hit a record of $3.2 billion and in 2022, they amounted to $2.7 billion.

Figure 5: The growth of new companies and Startups



Sources: High tech park Belarus the performance indicators of the decree no 8
Figure 4: The growth of new companies and startups in the High Tech Park

The following global scenarios analysis is based on the market performance of advanced countries such as Austria, Canada, China, France, Germany, Ireland, Japan, the United Kingdom and the United States as well as emerging countries such as Argentina, Brazil, Chile, Columbia, India, Indonesia, Israel, Poland, Philippines, Malaysia, Singapore and South Korea.
The adoption of vertical sectors in developed and emerging countries is outlined below:

- Agriculture – Advanced countries such as Australia and Canada have embraced ICT technologies to enhance farming practices. In Australia, 96% of farms use ICT assets and 95% are connected to IoT satellite imaging. They employ IoT-enabled applications (drones) with sensors to manage farm and animal health. In Canada, innovations include the development of a 'smart bucket' using AI, computer vision technology and Machine Learning (ML) to improve quality and growth across the aquaculture food chain. Emerging countries like are also making strides, using smart robotic equipment and self-driving tractors to integrate data from satellites, and sensors and scouting drones for farm management. Brazilian crop farmers utilise big data and edge analytics to boost operational efficiencies and use smart collars that contain sensors to track animals and identify habitual movements.
- Mining - Chinese companies have invested in ML and smart service robotics as key AI technologies being implemented in a production environment to create forecasting systems and to build, IoT-enable drones and unmanned aerial vehicles (UAVs). Blockchain is used as an enabler for greater supply chain efficiency.
- Manufacturing – Sectors advancing in IoT-enabled technologies, AI and ML have transformed modern cars into smart devices. These technologies are fuelling the Autonomous, Connected, Electric and Shared (ACES) trend within the global automotive industry, led by countries like Japan, Canada, Germany and South Korea. According to Visual Capitalist, up to 70% of all cars sold by 2030 could have self-driving features, while 15% could be fully autonomous. As of 2023, the widespread adoption of IoT in manufacturing has continued to revolutionise the industry. The integration of IoT in the manufacturing process offered numerous benefits,

including enhanced efficiency, real-time data insights, predictive maintenance, and optimised production, (Kuldeep Modi, A look at IoT in Manufacturing beyond 2023, 28 July 2023).

- Governments – According to 2023 Oxford Insights' Government AI Readiness Index, North America is on average the best-performing region at 80.57, Asia-Pacific at 50.79 and the lowest is Africa at 32.44. In addition, the report further highlights the current inequality in AI readiness between the global governments.
- Education - Case Weston Reserve University in the United States and the international schools in Israel use applications of digital technology to reshape education using Augmented Reality (AR), Visual Reality (VR) and remote learning capabilities aided by connected mobile devices e.g. laptops, tablets, smartphones, etc.

5.3.2The Global Infrastructure Market Analysis

Africa Digital Infrastructure Market Analysis 2023 WIP Report – focus on the following 3 ICT infrastructure areas:

- International and Long-Distance Connectivity
- Last Mile Connectivity
- Towers & Datacentres

International investments: in the investment in submarine cables led by technology giants and communication service providers has fuelled significant growth in international internet bandwidth, establishing Africa as the world's fastest-growing bandwidth market. In addition, a terrestrial fibre infrastructure expansion initiative boasts 1.2 million operational kilometres with more infrastructure under construction. This affirms Africa's unwavering commitment to meet the ever-increasing demand for high-speed connectivity and digital services, particularly in landlocked nations. The leading pan-African operators such as MTN, Orange, Liquid Intelligent Technologies, and Csquared strategically advance terrestrial fibre networks across multiple African countries, offering crucial last-mile access and strengthening broadband availability. These developments underscore substantial investments and a growing interest in enhancing connectivity and digital services across the continent.

- The 2Africa subsea cable located in Gqeberha, bolsters international connectivity. While Equiano cable mitigated disruptions, and Liquid Intelligent Technologies introduced the Mauritius Telecom T3 cable, enhancing internet connectivity and stability between South Africa and the Indian Ocean islands.

Figure 6: Global Digital Infrastructure Snapshot

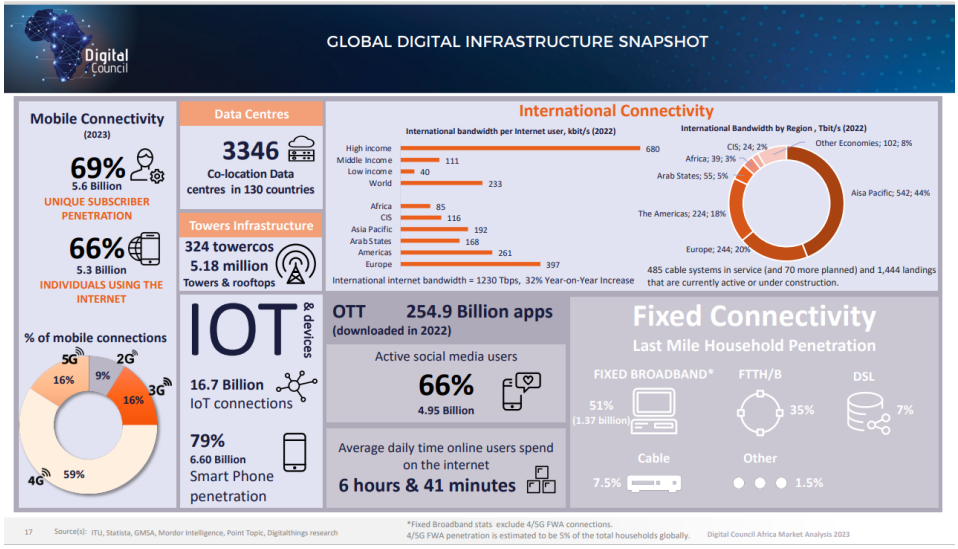


Figure 5: Global Digital Infrastructure Snapshot

Global Digital Infrastructure Ownership:

- Nippon Telegraph and Telephone (NTT) has been named as a Leader in the global Gartner Magic Quadrant for Network Services, for the tenth consecutive year, based on their ability to execute and vision completeness.
- Mobile connectivity subscription was at 5.6 billion (69%), and internet usage was at 5.3 billion (66%).
- There is a total of 3346 data centres with co-location facilities in 130 countries.
- With regards to IOT and Devices, 16,7 billion IoT connections & 6,60 billion smartphone penetration.
- In terms of International Connectivity, Africa's international bandwidth is 39,3% and the Asia Pacific is at 542,44%
- Last-mile household penetration for fixed broadband is at1,37 billion (51%)
- Fibre to the home and business (FTTH/B) at 35%

Last Mile Connectivity - Fixed Wireless Access (FWA) is quickly becoming more popular, with about 80% of mobile service providers now offering FWA packages globally. Approximately 40% of them provide FWA services through advanced 5G networks, and it is expected to witness significant growth, with an estimated 80% of future connections using 5G networks. The global 5G landscape is evolving rapidly, with 240 service providers offering commercial 5G services worldwide. Leading countries like South Korea and the United States have taken the lead in 5G adoption. However, Sub-Saharan Africa is steadily advancing in 5G adoption, with several countries actively allocating 5G spectrum.

Towers & Datacentres – In the past ten years, the global telecom tower industry has gone through significant changes to meet the evolving needs of emerging African markets. Tower companies (towercos) are now focusing on developing and leasing vertical real estate, while also expanding into digital infrastructure such as fibre networks and data centres. This shift is driven by the urgent need to improve internet connectivity in remote areas, meet the increasing demand for cloud-based services, and support the widespread use of 4G LTE technology.

- The global telecom tower market has exceeded 4.7 million units in 2022 and is expected to reach 5.7 million units by 2028.
- The African Telecom Towers Market is set for significant growth, with an impressive compound annual growth rate (CAGR) of 4.6% expected from 2023 to 2028.
- In 2023, there was a slowdown in acquisitions, but the potential for mergers and acquisitions (M&A) with local Mobile Network Operators (MNOs) and the consolidation of towercos remains strong. The focus is on improving operational efficiency, with larger towercos emphasising network enhancements and smaller enterprises driving the deployment of greenfield towers, strategically narrowing the connectivity gap.
- Telecom towers are crucial for modern telecommunications, serving as the foundational infrastructure for wireless communication networks, and increasingly hosting 5G antennas.
- The increasing presence of smart cities, thriving e-commerce, online services, and the growing popularity of video streaming highlight the essential role of telecom towers in ensuring the smooth transmission of data.
- Regulatory requirements often drive the expansion of coverage into rural areas Consequently, telecom operators are actively seeking cost-effective ways to extend coverage to rural areas, often through collaborations with satellite backhaul service providers.
- The data centre industry is experiencing exponential growth, driven by advancements in

artificial intelligence, cloud services, and various emerging technologies. The African continent is becoming a key focus for cloud investments, driven by the need for business expansion and innovation, despite challenges related to skills and cost planning. The industry is dominated by major players such as AWS, Microsoft Azure, and Google Cloud.

- The global cloud computing market is projected to reach a staggering $1.6 trillion by 2030.

5.3.3 The Global Information Technology

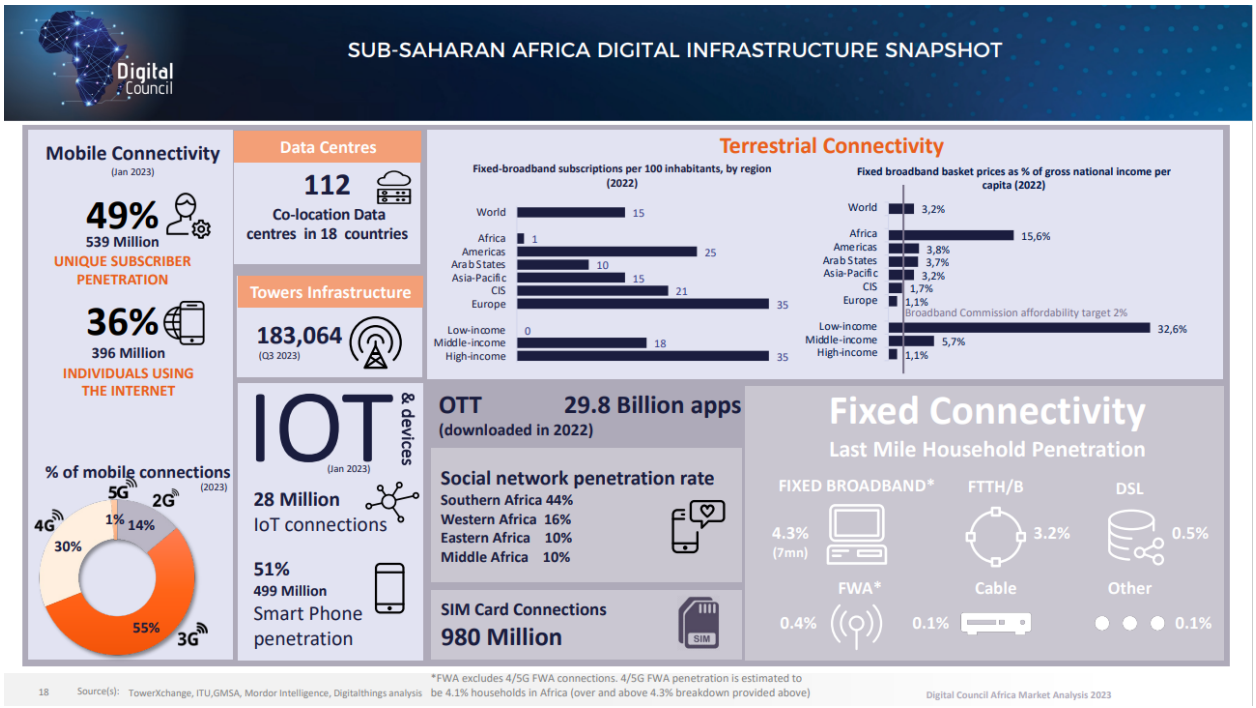
The global Information Technology (IT) market was valued at US$ 341.64 billion in 2022 and is projected to grow at a CAGR of 11.26% to reach a value of US$ 582.33 billion by 2027. The cumulative revenue generation opportunities for ICT in IT are estimated at US$ 2,671.20 billion between 2022 and 2027. The top three product/service categories in this sector are cloud computing, client computing and networking.

ICT Spending highlights
On January 15th, 2024, technology and research firm Gartner projected that global ICT spending would grow by 8% in 2024, reaching approximately US$5.1 trillion (R100 trillion). The global telecom tower market size was 4.7 million units in 2022 and is anticipated to reach 5.7 million units by 2028, showing a growth rate (CAGR) of 3.3% during 2023-2028.

5.3.4 Global ICT industry employment
According to the Statista Research Department (7 July 2023), worldwide full-time employment in the ICT industry was projected to reach 55.3 million in 2020, representing a 3.9% increase over 2019. This pre-pandemic estimation highlights the growth and significance of the ICT sector. Major job roles within the industry include software developers/engineers, user support specialists and systems analysts reflecting the diverse range of skills and expertise required to support the ongoing digital transformation and technological advancements globally.

5.4 NATIONAL OVERVIEW OF THE DIGITAL AND ICT SECTOR

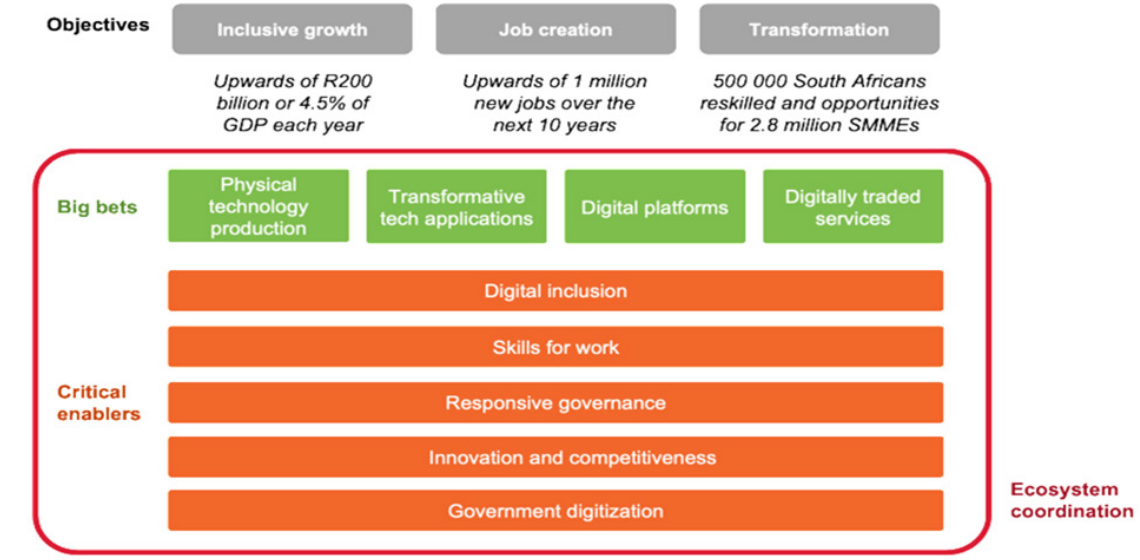
South Africa ICT Industry Overview
The South African ICT market is currently fragmented, consisting of numerous players, as reported by Globaldata. Key companies such as IBM Corporation, Wipro, Vodacom South Africa, Telkom SA, and MTN South Africa are actively seeking advancements through collaborations and expanding their presence in developing regions to strengthen their market positions.
According to Market wide research report for 2024, The South African ICT market has experienced significant growth driven by government initiatives, increasing internet penetration, technological improvements, and a rising demand for digital solutions. However, this growth is not uniform across the country. High ICT adoption rates are concentrated in tech hubs like Johannesburg, Cape Town, and Durban while rural areas present untapped potential that can be leveraged through targeted efforts. The Covid-19 pandemic accelerated South Africa's digital transition, with increased usage of digital communication platforms, e-commerce, and remote work. This period underscored the necessity for secure and reliable ICT solutions.



National Digital Infrastructure:

- Mobile connectivity subscription was at 539 m (49%), and internet usage was at 396 ml (36%)
- 112 total number of data centres with co-location facilities in 18 countries.
- IOT & Devices – 28 m IoT connection and 499 m smartphone penetration
- Terrestrial Connectivity – Africa's national income at 15,6%, Asia Pacific at 3,2%
- Last mile household penetration –fixed broadband at 7 m (4,3%)
- Fibre to the home and business (FTTH/B) at 3,2%
- SA is ranked number 1 at 4.4%, share of total subscriptions out of 10 African Countries with the most 5G adoptions.
- Total number of Towers owned ranking: Nigeria is ranked first at 29 467 and SA second at 24 903.
- Total number of SA data centres: 61, number of cloud service providers: 1 093, and number of network fabrics: 9.
- Gauteng is the continent's leading data centre location with over 55% of the country's capacity: 34 colocation data centres, 741 cloud service providers, and 34 network fabrics, with 422 service providers.
- The data centre investments in Africa are expected to grow from $2.5 billion in 2022 to $3.5 billion by 2026.

Policy Framework and Strategic Alignment



Source: Genesis Analytics, 2020

- National Development Plan 2030
- South African Economic Reconstruction and Recovery Plan
- Growing Gauteng Together 2030
- Gauteng Provincial Government 4IR Growth and Digitalisation Strategy
- National Industrial Policy Framework
- Reimagined Industrial Strategy (Master Plan Approach)
- Industrial Policy Review 2024
- ICT and Digital Master Plan (National)
- Cybercrimes Act, Electronic Communications Act, and the Protection of Personal Information Act (POPIA)
- The ICT B-BBEE Sector Code requires a minimum of 30% Black ownership for compliance with government procedures and incentive schemes.
- Enterprise Development: Large IT companies support the development of black-owned hardware and software resellers through enterprise and supplier development initiatives.

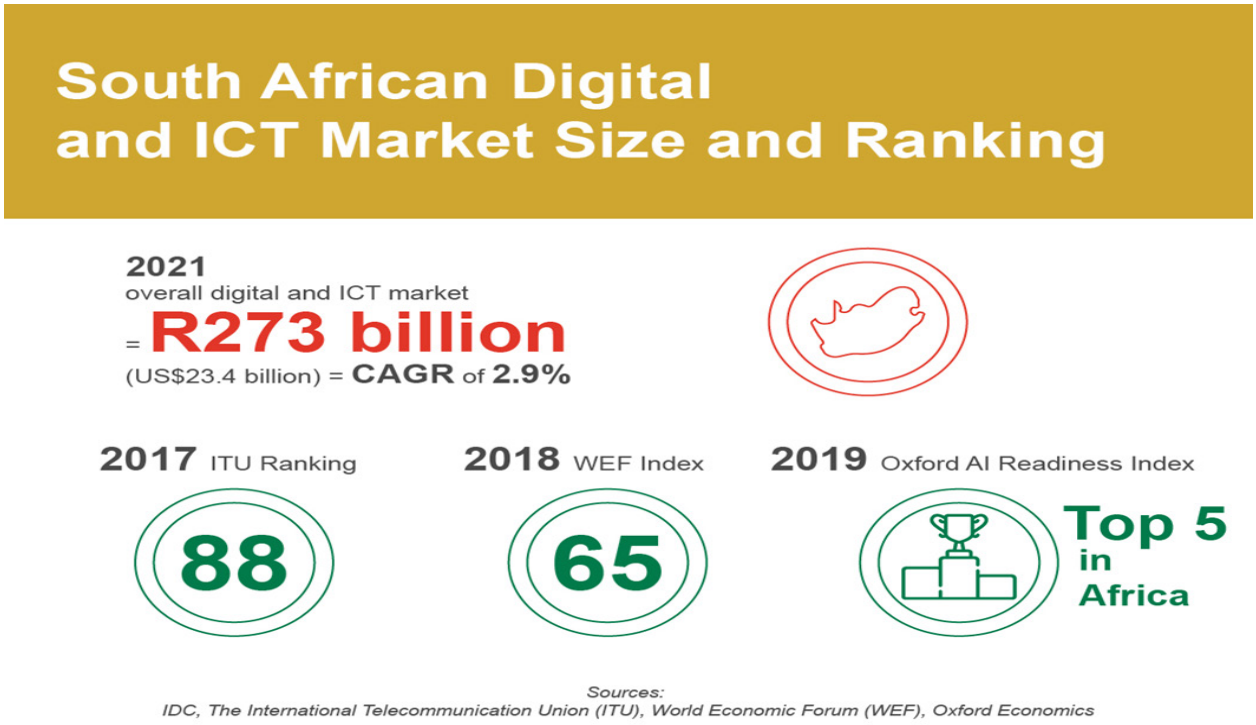
Regulatory Environment Key Development Highlights:
According to the Digital Council 2023 WIP report, recent developments in the South African ICT sector include several key initiatives. Firstly, there are revised deadlines for the switch-off of analogue TV. Secondly, a national policy for Electronic Communications Amendment Bill, which includes a five-year deadline for nationwide 4G and 5G network deployment. Additionally, there are plans to establish community WiFi hotspots to achieve universal internet access by 2025. These efforts collectively enhance digital infrastructure and competitiveness across the country.

According to Digital Council Africa, the growth and implementation of digital access expected to enhance living conditions for South Africans and Africans broadly, providing African nations with a digital footprint that will improve their efficiency and competitiveness in the international market. Although Sub-Saharan Africa lags behind the rest of the world in government AI preparedness,

there has been progress in data protection legislation. However, a significant challenge remains in allocating resources to strengthen data protection authorities, South Africa's legislation in this area could serve as a model for other nations with weak internal capacity.

Market Value

The market's is expected to grow positively due to the ongoing digital revolution, infrastructure investments, and increasing demand for digital solutions. According to the Globaldata Report (19 July 2023), the South African ICT market is projected to increase from US$ 33.49 billion in 2022 to US$45.10 billion by 2027, with a CAGR of 6.14%. South Africa is expected to offer income/revenue generation opportunities of US$232.36 billion for ICT providers between 2022 and 2027. The Africa Telecom Towers Market is set for significant growth, with the installed base predicted to rise from 199 thousand units in 2023 to 249 thousand units by 2028, reflecting a robust CAGR of 4.6% during the forecast period (2023-2028)

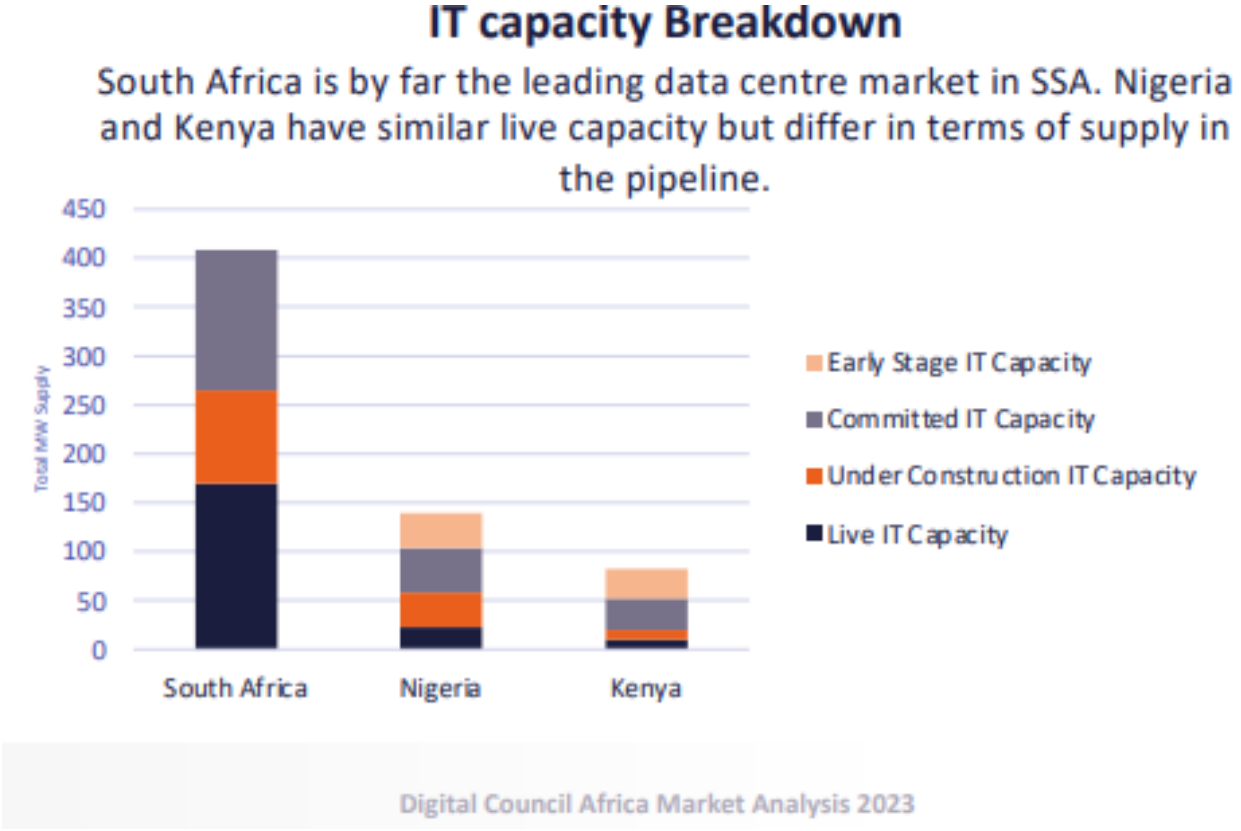


- The ICT market generated ZAR273 billion (USD23.4 billion) in 2021, at a CAGR of 2.9%.
- The contribution to the country's GDP in 2022 was 8%.
- IT spending in South Africa is expected to grow by 2.3% in 2023, with the total revenue forecasted to reach R25.6 billion for the personal computer market.
-
- Digital Economy and ICT Industry Statistics (Globaldata report 19 July 2023)
- The ICT market generated ZAR273 billion (USD23.4 billion) in 2021, at a CAGR of 2.9%.
- GDP - $33.49 billion in 2022, estimated to grow at a CAGR of 6.14% to reach a value of $45.10 billion in 2027.
- The contribution to the country's GDP in 2022 was 8%.
- IT spending in South Africa is expected to grow by 2.3% in 2023, with the total revenue forecasted to reach R25.6 billion for the personal computer market.
- Total revenue opportunities for ICT providers are anticipated to increase to $232.36 billion

between 2022 and 2027.

- The expected value of ICT exports is $1.16 billion by 2026.
- 20000 ICT companies were active in 2022.
- A GSMA report titled “5G Africa: Realising the Potential” suggests that 5G will contribute $26 billion to Africa’s economy by 2030.
- SA is ranked number 1 at 4.4% share of total subscriptions out of 10 African Countries with the most 5G adoptions.
- As of Q3 2023, telecom tower companies own and manage 48.5% of Sub-Saharan Africa’s 183,064 telecom towers.
- Nigeria ranked first at 29 467 and South Africa second at 24 903 in terms of the total number of Towers owned.
- The Data Economy is estimated to be worth $4 Trillion.
- Total number of South African data centres: 61, total number of cloud service providers: 1 093 and total number of network fabrics: 9.
- The investment in data centres in Africa is projected to increase from $2.5 billion in 2022 to $3.5 billion by 2026
- In South Africa, only 41% of the total market capacity has been fully developed, indicating substantial growth potential. Similarly, Nigeria has developed 21%, while Kenya has developed 19%.

Figure 10A: 10 African Countries with the most 5G adoptions



10 African Countries with the most 5G adoptions

Rank	Country	Total Mobile Subscriptions	5G Subscriptions	5G Share of Total Subscriptions
1	South Africa	112,397,558	5,000,000	4,4%
2	Mauritius	2,095,499	80,000	3.8%
3	Nigeria	209,450,208	50,000	0,0%
4	Togo	6,402,786	33,000	0,5%
5	Seychelles	200,750	16,410	8,2%
6	Reunion	961,000	13,000	1,4%
7	Zimbabwe	14,570,000	6,000	0,0%
8	Botswana	4,363,006	5,000	0,1%
9	Zambia	20,370,000	5,000	0,0%
10	Tanzania	60,192,331	600	0,0%

Key developments are listed below:

- In December 2022, Telkom introduced new 5G Internet Data tariffs as part of its 5G Wireless Broadband service offering. The plans are available in some Telkom 5G Broadband Network Coverage locations., 5G is the latest high-speed wireless internet technology, providing users with faster download and upload speeds. This smooth and blazing-fast Internet connection allows customers to enjoy improved gaming, music, video streaming, and app downloads.
- In March 2022, IBM announced the establishment of a Client Engineering team in South Africa and the Middle East for customers and business partners. According to IBM, its Client Engineering teams consist of designers, solution architects, data scientists, cloud engineers, security experts, business transformation consultants, and more. They work on the agile co-creation of IBM technology and consulting solutions for their clients, all within six to eight weeks.

National Connectivity

The world is seeing a significant increase in mobile data usage, largely due to more people using smartphones and increased data consumption, particularly for watching video content. Sub-Saharan Africa is expected to experience the highest growth in total mobile data usage, with an annual increase of 37% between 2022 and 2028. This growth is being fuelled by major investments in 4G networks by service providers in the region, as well as customers transitioning from 2G and 3G networks. Despite starting form a lower base, Sub-Saharan Africa, anticipates rapid growth, with an expected smartphone data usage of19 GB per month by 2028.

The terrestrial Fibre network in South Africa has more than 80000 kilometres of coverage, providing

almost universal broadband service across the country, excluding the last mile. MNOs are expanding mobile their coverage through 4G/5G investment and have access to the additional radio frequency spectrum, leading to rapid growth in last-mile fibre deployments.

Here are some key points:

- National population coverage for 4G/5G reached 10% in 2022, up from 8% in 2021.
- Last-mile fibre deployments increased the number of internet users to approximately 43.5 million with a penetration rate of 72%.
- Between September 2021 and September 2022, approximately R3.5 billion was spent on batteries and generators, according to the ICASA report.
-
- Key Challenges and Developments Highlights:
- There are several challenges to overcome in achieving universal service targets. These include geographic broadband service gaps, unequal access to Internet services, uneven performance of broadband services, and demand-side barriers such as the unaffordability of end-user devices (e.g. smart smartphones) and broadband services for extensive usage by many. Additionally, increasing load shedding hampers the availability and quality of broadband services in the country and requires significant investment by the operators to implement power backup solutions.
- Remgro-controlled Community Investment Ventures Holdings (CIVH) has announced the consolidation of its fibre infrastructure entities, Vumatel and Dark Fibre Africa (DFA) in 2022 (merged and rebranded as Maziv). However, the Competition Commission has prohibited a deal between Vodacom and Maziv in August 2023. Reportedly both companies plan to approach the Competition Tribunal to overturn the commission's decision.
- After the legal and structural separation of Openserve in September 2022, Telkom reportedly planned to sell a stake in its wholesale and networks business, Openserve. This move aims to create value for shareholders and boost profits.
- Additionally, MTN is working towards completing the separation of its fibre assets to Bayobab targeted for completion by 2024. This separation will occur across several of its operating companies including those in South Africa.

Fixed Broadband Market Trends

South Africa has experienced a substantial increase in the demand for reliable and fast internet in recent years. Last-mile fibre deployments are ongoing, with a focus on secondary towns and remote locations as major population centres are reach maturity.

- Of 17.5 million households in the country, 30% are covered with fibre broadband service and 11% have active fibre connections.
- Fibre coverage exceeded 5.3 million premises passed as of April 2023 (including the count of overlapping builds by fibre network operators) up from 3.8 million a year ago, representing a 40% year-on-year (y-o-y) growth.
- Active fibre connections reached 1.95 million, a 32% y-o-y growth from 1.48 million a year ago.
- The service uptake rate has slightly declined from 39% to 37% given the rapid expansion of the fibre deployments.
- Fixed wireless access (FWA) continues to play a crucial role, providing an effective method for connecting communities and businesses to the Internet in less-populated areas, urban edges and rural communities with little or no fixed broadband coverage.
- MNOs have intensified their efforts to promote their standard-based (4/5G) fixed-wireless

products.

- Some fixed wireless broadband services utilise unlicenced non-GSM spectrum, competing with cellular operators and offering connectivity in areas without 4G or 5G coverage.
- The non-standard fixed wireless subscriptions remained stagnant at approximately 210000 as of March 2023.
- The number of DSL subscribers declined by 17% y-o-y from 316000 in 2021 to 254000 in 2022 as services are increasingly being replaced by fibre and fixed wireless products.
- The number of satellite subscriptions also saw a 17% y-o-y decline from 19,7000 in 2021 to 16,4000 in 2022.
-

Figure 11A: Fixed Broadband Subscription

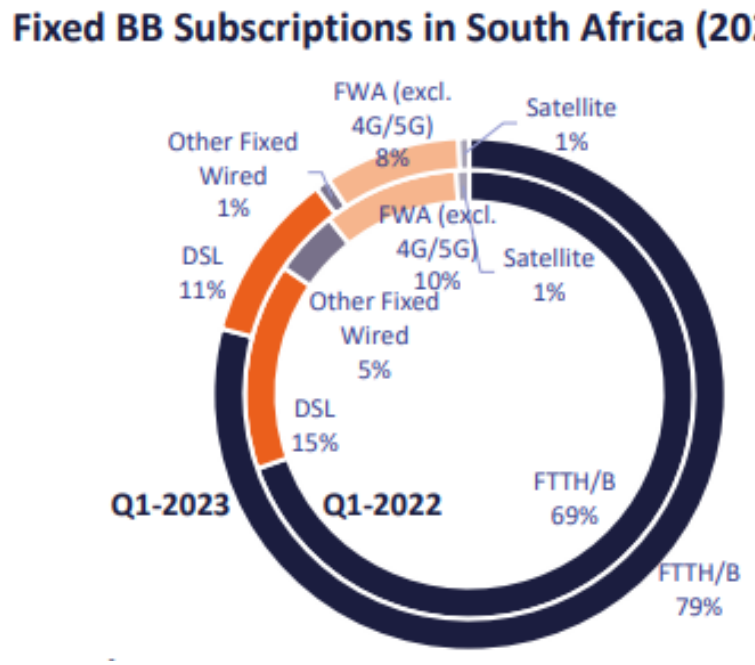
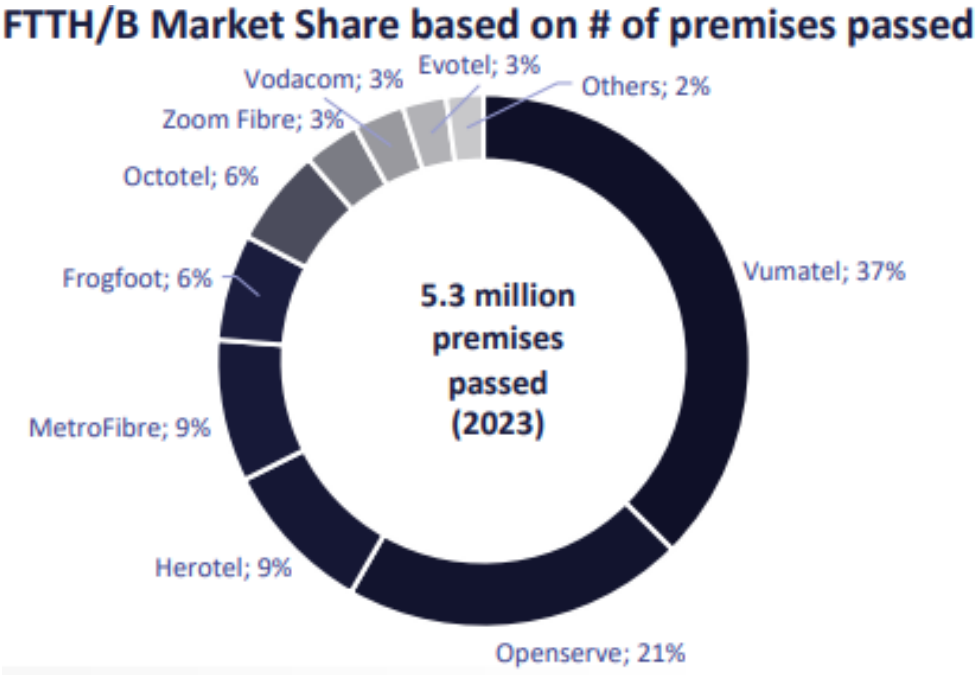


Figure 11B: Fibre-to-the Household/Building



Digital Council Africa Market Analysis 2023

South Africa Mobile Network Operators Market

There are five MNOs in the South African market. Vodacom and MTN dominate SA's mobile market with over 70% market share, backed by smaller competitors such as Cell C, Telkom Mobile and Rain, MVNOs, and ISPs, with 113 million mobile connections, and innovative network strategies.

A new MVNO called Melon Mobile, live since 13 April 2023, operates on the MTN South Africa network.

- According to the latest regulator, MNOs and GSMA Intelligence data, there were 112.7 million cellular mobile connections in SA at the start of 2023, equivalent to 187.4 % of the total population. South Africa's mobile connections increased by 4.0 million (+3.7 %) between 2022 and 2023.
- South Africa is taking the lead in the African market, boasting around 5 million subscriptions by the end of 2023. In comparison, Mauritius is trailing far behind with a mere 80,000 subscriptions.

Batteries and Generators used during the Electricity Loadshedding period

- SA telcos, Vodacom and MTN, spend over $535 million a year on their mobile networks in the country.
- MTN has deployed over 20,000 batteries, 5,000 rectifiers and nearly 900 generators to sites across SA and is spending R4.5 billion to R5 billion to ensure seamless communications during load-shedding.

South Africa ICT industry employment

According to the white paper 2022, the South African ICT sector has 255 933 employees working for 20,000 companies and contributes 8% to the national GDP (per iWeb on ICT). South Africa is highly regarded as a centre of software development and offers attractive inward investment opportunities, especially in:

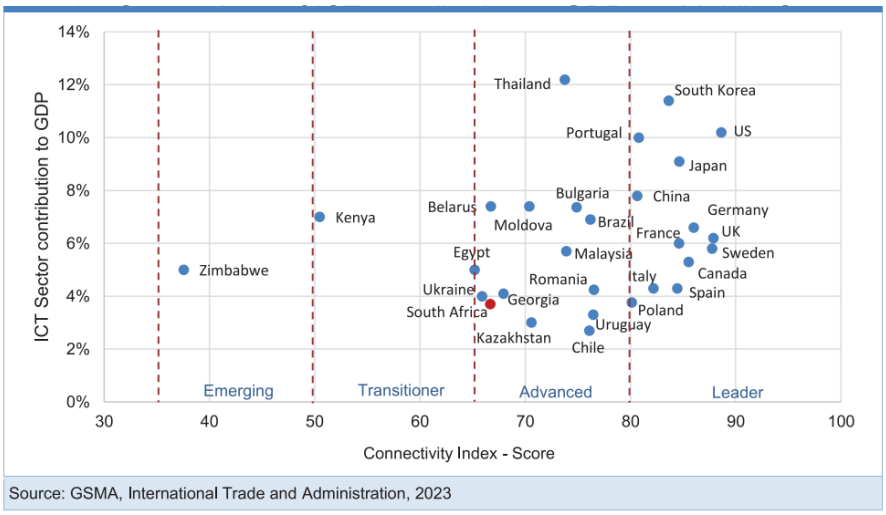
- Automotive electronic systems
- Access control, security
- Financial sector
- Silicon processing for fibre optics
- Integrated circuits and solar cells

Statistics South Africa produces an 'ICT satellite account' for the sector, which includes an analysis of the supply and use of ICT services in South Africa. The top five priority areas, ranked in descending order are Software as a Service (SaaS), cloud computing, network infrastructure, information security, application development and business intelligence/knowledge management (which now includes big data/analytics).

South Africa in Global Setting ICT Ranking

- South Africa is considered an advanced country with a high Connectivity Index score and a significant contribution from the ICT Sector contribution to its GDP.
- Advanced economies account for 18.4% of GDP while developing economies contribute to 10% of GDP. The USA leads with 35% of GDP, while China accounts for 13% of the GDP.

F vity Index scores, 2022



Source: GSMA, International Trade and Administration, 2023

Global/International Comparison of South Africa's Internet Speeds

The internet speed for fixed broadband and mobile (download and upload speed) for SA was compared to other countries to have a better understanding of its growth and how it is performing internationally.

According to the Speedtest® Index, South Africa's fixed broadband speed ranking improved from 100th place in 2021 to 95th in 2022 out of 180 countries. The fixed download speed was at 43.23 megabits per second (Mbps), and the upload speed was at 33.06 Mbps. The mobile download speed was 34.71 Mbps and the upload speed was 6.70 Mbps.

Global/International Speedtest® benchmarks

Fixed Broadband						
	Singapore	Chile	China	United Arab Emirates	Hong Kong (SAR)	South Africa
Fixed Broadband speed (ranking)	1	2	3	4	5	95
Fixed Broadband download speed (Mbps)	234,55	224,84	211,34	207,41	206,71	43,23
Fixed Broadband upload speed (Mbps)	199,84	133,81	38,22	97,28	149,72	33,06
Mobile Broadband						
	United Arab Emirates	China	Singapore	Hong Kong (SAR)	South Africa	Chile
Mobile Broadband speed (ranking)	1	8	19	34	58	79
Mobile download speed (Mbps)	161,15	99,48	78,92	56,64	34,71	25,81
Mobile upload speed (Mbps)	23,49	23,45	15,87	12,06	6,79	11,88

Source: OOKLA, Speedtest Intelligence® 2022

Speedtest® benchmark with BRICS countries

In 2022, when comparing with other BRICS countries, South Africa's Speedtest® ranking for fixed broadband was the lowest at 95th place. However, South Africa's ranking for mobile broadband was the second best in the BRICS grouping, with a ranking of 58th place out of 137 countries. China led the BRICS countries with a Speedtest® ranking of 8th place.

Figure 14: The Speedtest benchmark BRICS countries in 2022

Fixed Broadband					
	China	Brazil	Russia	India	South Africa
Fixed Broadband speed (ranking)	3	30	52	79	95
Fixed Broadband download speed (Mbps)	211,34	100,58	75,1	50,02	43,23
Fixed Broadband upload speed (Mbps)	38,22	73,7	81,43	48,77	33,06
Mobile Broadband					
	China	Brazil	Russia	India	South Africa
Mobile Broadband speed (ranking)	8	57	85	69	58
Mobile download speed (Mbps)	99,48	35,85	23,46	29,85	34,71
Mobile upload speed (Mbps)	23,45	10,87	8,41	6,16	6,79

Source: OOKLA, Speedtest Intelligence® 2022

Source: OOKLA, Speedtest intelligence 2022

Gauteng Broadband Network (GBN)

The GPG e-Government strategy and department play a crucial role in the implementation of SA Connect, particularly through the Gauteng Broadband Network (GBN). GBN is making significant progress in deploying infrastructure across the province. The targets outlined in SA Connect are depicted in Figure 14 below. By 2020, the minimum average speed for 50% of the population is targeted at 100Mbps, while 90% of the population is expected to have a minimum average speed of 5Mbps. However, by 2020, only a relatively small proportion of schools in Gauteng were anticipated to be to be connected in Gauteng at 100Mbps. Consequently, a key component of the ICT sector strategy is the rollout of broadband to schools in Gauteng. This rollout has facilitated the implementation of the province's Voice over Internet Protocol (VOIP) programme, significantly reducing telephony costs. By the end of the 2017/18 financial year, VOIP was activated in 150 GBN sites, resulting in cost savings, estimated to be in the region of 60% of the previous expenditure on telephony.

Table 3: SA Connect (SA's national broadband plan (minimum average speeds in Mbps))

Target	Penetration measure	Baseline (2013)	By 2016	By 2020	By 2030
Broadband access in Mbps user experience	% of population	33.7% internet access	50% at 5Mbps	90% at 5Mbps and 50% at 100Mbps	100% at 10Mbps and 80% at 100Mbps
Schools	% of schools	25% connected	50% at 10Mbps	100% at 10Mbps 80% at 100Mbps	100% at 1Gbps
Health facilities	% of health facilities	13% connected	50% at 10Mbps	100% at 10Mbps 80% at 100Mbps	100% at 1Gbps

Target	Penetration measure	Baseline (2013)	By 2016	By 2020	By 2030
Government facilities	% of government offices		50% at 5Mbps	100% at 10Mbps	100% at 100Mbps

Source: 'South Africa Connect', Available from: http://www.doc.gov.za/documents-publications/broadband.html

According to a meeting report by Matibe (2020) dated 5 February 2020, only 970 sites are connected in phase 1 due to a lack of funding. The implementation is being carried out by Broadband Infraco and the State Information Technology Agency (SITA). On 22 January 2020, 630 sites are connected, and the remaining will be connected by the end of the 2019/20 financial year.
(https://pmg.org.za/files/200205SA_Connect_USAASA_and_DTPS.pptx)

Gauteng Province
The broadband coverage is monitored across sixty-three (63) Townships in the GPG. Gauteng Province set a base target of 45 to track its townships with broadband coverage. Figure 15 below illustrates a total of 50 townships and all 6 Gauteng Province Hostels achieved broadband coverage in FY2023/24.
Table 4: Gauteng Province broadband coverage is monitored

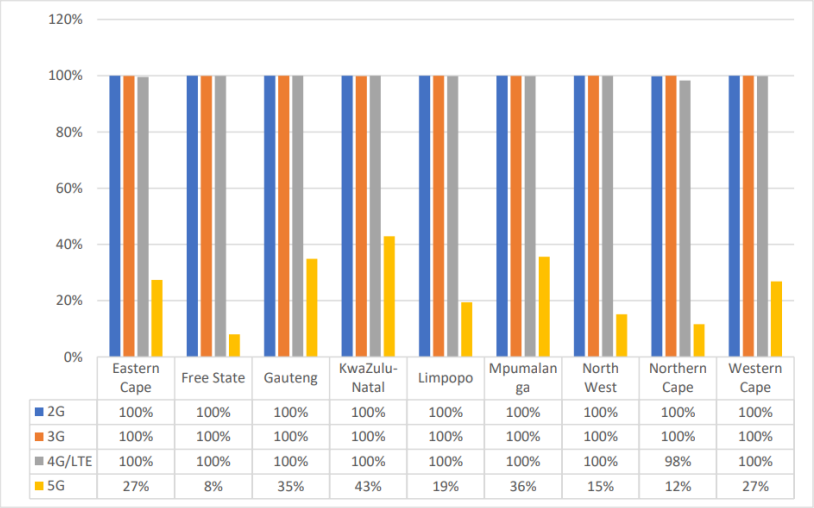
BROADBAND 2023-24		
Activities	Quarter	Number of Townships
Number of Townships Reported	1	17
Number of Townships Reported	2	12
Number of Townships Reported	3	13
Number of Townships Reported	4	8
Total number of Townships with coverage		50
N.B. All Gauteng Province government-owned hostels have broadband coverage = 6		

Broadband Infrastructure Deployment Skills Development Training
The Gauteng Province supported unemployed youth with Broadband Infrastructure Deployment Skills Development. A total of 40 beneficiaries completed the training in Broadband/Fibre Optic skills from CoT (Ga-Rankuwa) and CoT (Tshepisong).
Regional analysis
The South Africa ICT Market's growth is not uniform across regions. Urban centres such as Johannesburg, Cape Town and Durban are tech hubs with high ICT adoption rates. Rural areas present untapped potential and offer opportunities for market expansion through targeted initiatives.
Speedtest® benchmark with Neighbouring Countries
In 2022, Ookla Speedtest Intelligence® ranked South Africa at 95th place (out of 180 countries)

for fixed broadband, which is the highest ranking when compared to other neighbouring countries, followed by Lesotho being the second highest in Southern Africa with a ranking of 134th place. Mobile its

Fixed Broadband							
	South Africa	Lesotho	Zimbambwe	Namibia	Mozambique	Botswana	Eswatini
Fixed Broadband speed (ranking)	95	134	164	165	168	169	170
Fixed Broadband download speed (Mbps)	43,23	18	7,58	7,51	6,48	6,43	5,59
Fixed Broadband upload speed (Mbps)	33,06	14,27	8,5	3,21	4,45	4,8	4,58
Mobile Broadband							
	South Africa	Namibia	Mozambique	Zimbambwe	Lesotho	Botswana	Eswatini
Mobile Broadband speed (ranking)	58	98	107	132	-	-	-
Mobile download speed (Mbps)	34,71	20,03	17,55	8,58	-	-	-
Mobile upload speed (Mbps)	6,79	7,92	12,2	4,21	-	-	-

Source: OOKLA, Speedtest Intelligence® 2022



Source: ICASA Electronic Communications Questionnaire 2022

, and LTE coverage in 2022.
ge at 43%, and Gauteng is the 3rd

, 2022

As part of SA Connect, the government is expected to bridge the digital divide by enabling internet connectivity for the country's rural population. The goal of the program is to connect 90% of the population to the Internet by 2025. While the responsibility of connecting, rural areas has been on the government, the private sector is also exploring options for providing ubiquitous, affordable connectivity.

Gauteng's digital and ICT market is emerging as the second most prolific sector in global service delivery. The corridor has established expertise and capabilities in Information Technology Outsourcing (ITO), making it a market leader in servicing both the domestic and international markets.

According to the 2019 Gauteng Global Business Services (GBS) Market Quantification Report, ICT service providers in the province offer software development (76%) and application development/ management and technical support (64%) services to global businesses, particularly in the United Kingdom and the United States. Moreover, many Gauteng technology operators are transitioning towards next-generation digital capabilities and services. The report suggests that between 2019 and 2020, technology providers in the province are expected to increasingly focus on artificial intelligence (34%) and robotic process automation (31%).

5. PROVINCIAL OVERVIEW OF THE ICT SECTOR

The Gauteng Provincial Government is making substantial investment in ICT and e-government services as part of its Gauteng 2030 Strategy to become a smart province. This includes telecommunications (connectivity), IT services, software (applications) and hardware (electronics), which accounted for approximately R90.1 billion in 2015, or 63% of the national ICT expenditure, according to the SA Regional ICT Market Sizing Report by BMI-TechKnowledge.
Over the period 2021-2022, the total telecommunications revenue increased by 4.61% from R243.6 billion in 2021 to R254.8 billion in 2022. Despite the load-shedding
Despite the load-shedding experienced in 2022, revenue from telecommunications and broadcasting services increased by 3.94% and 11.97%, respectively. However, revenue from postal services decreased by 16.26%, from R6.6 billion in 2021 to R5.5 billion in 2022. Total telecommunications investment increased by 17.16%, from R33.9 billion in 2021 to R39.7 billion in 2022, according to ICASA's State of the ICT Sector Report 2023.
Gauteng is a major hub of South Africa's digital and ICT industry. A significant number of global players have regional headquarters in the province, including Google, HP, IBM, LG, Microsoft, Nokia, Oracle, SAP and Siemens. Other companies are investing through partners based in the province, such as Neotel (Liquid Telecom), Dimension Data (Cisco), Vodacom (Vodafone) and Core Group (Apple).
According to GPG (2019), around two-thirds of these companies are located in the Central or Northern Development Corridors of Gauteng. The City of Tshwane is situated in the Northern Development Corridor and serves as the nation's administrative centre. It has strong automotive, R&D, innovation and knowledge-based economies, as well as a growing pool of ICT skills. The well-developed transport and ICT infrastructure in the Central Development Corridor, encompassing major business hubs like Johannesburg, Sandton and Midrand, coupled with the region's sizable skills base, has also made it an attractive location for digital and ICT service providers.

- Gauteng - Johannesburg is the continent's leading data centre location with over 55% of the country's capacity. It has a connectivity ecosystem made up of 34 colocation data centres, 741 cloud service providers and 34 network fabrics, with 422 service providers.
-

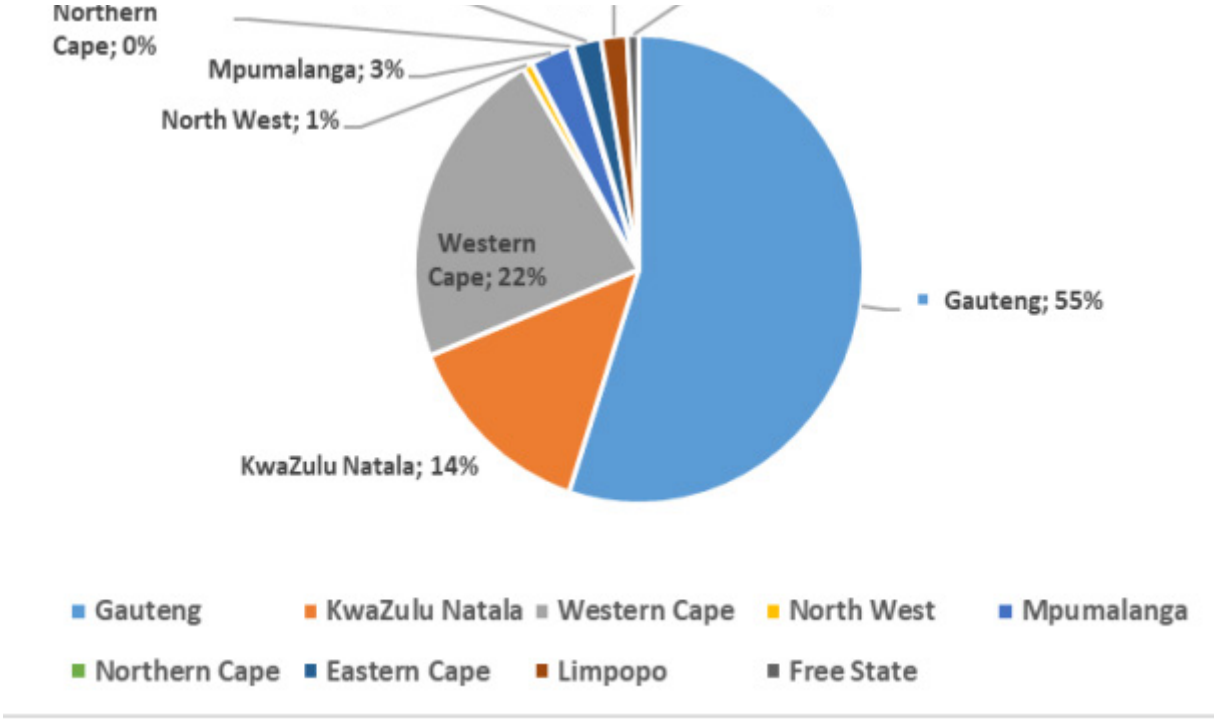
According to SETA (2022-2023), the MICT sector comprises 32 985 employers and 214 548 employees across all five sub-sectors. As per table 3 below, the Information Technology sub-sector is the largest, accounting for 54% of employers. Telecommunications is the second largest at 28%, whilst Electronics and Advertising are tied third at 9% and 4% each (13%). The sub-sector that accounts for the least number of employers in the MICT sector is Film and Electronic media at 5%.

Table 6: Number of Employees by Sub-sector

Sub-Sector	Number of employees	% of employees
Advertising	8 964	4%
Film and Electronic Media	10 968	5%
Electronics	19 522	9%
Information Technology	115 003	54%
Telecommunications	60 121	28%

The province with the largest number of employees is Gauteng (55%), followed by Western Cape (22%) and the KwaZulu-Natal (14%). These three provinces account for nearly 91% of all employees. Figure 18 below illustrates the employer base per province.

Figure 16: MICT Sector Size of Employers Per Province



Gap Analysis - Challenges Affecting the ICT and Digital Sector

Table 7: Challenges Affecting the ICT and Digital Sector

Challenges which impede the sector from growing:	
• New services landscape and economic transformation/changes in the workforce labour practices • New range of technologies/opportunities 4IR presents • Lack of scale, industry co-ordination • Government support un-coordinated, and exchange rate weakness and currency volatility • Slow government implementation of preferential procurement for SMMEs etc. • Globalisation of manufacturing and compliance with international • The major problems identified are, shortage of high-skilled labour, minimal innovation, access to finance, infrastructure issues, and human capital standards	• Difficulties with the IP registration process, access to the market and commercialisation of products and services • There is yet no centralised portal as a one-stop-shop for entrepreneurs to source all the help they need • Unreliable electricity supply • Lack of strategic infrastructure is one of the impediments to the commercialisation of innovative products • Lack of suitable infrastructure in townships and developments is slow • Most of Gauteng's existing facilities are linked to universities, CSIR etc.

Emerging Economic Opportunities

- Improving internet speeds and reducing prices to boost IP-based applications.
- Entertainment content and smart devices are expected to continue to be an opportunity for growth by developing local content digital entertainment and education catering to domestic and international audiences.
- Data science centres – Enterprise solutions such as cloud, cyber security, big data, and artificial intelligence are gaining more traction.
- Digital skills pipeline – by addressing critical skills needed including AI, ML, data analytics, and data science expertise.
- Taking full advantage of digital and ICT technologies to impact inclusive economic growth and leverage existing high-tech platforms available.
- Providing adequate infrastructure through smart city services to the SMME segment looking for IT services including township and rural communities.
- The key vertical sectors and potential digital and ICT-led development opportunities for Gauteng include Agriculture, Construction, Education, Healthcare, Financial Services, Manufacturing, Mining, Retail and Wholesale, Transport and Logistics, and Smart cities (including e-government and public administration).

7. SWOT ANALYSIS

Table 8: SWOT Analysis for the Digital and ICT Sector

Strengths	Weakness
• Has one of the largest and most advanced ICT sectors in the region • Strong ICT infrastructure in urban centres. • Rapidly growing mobile and internet penetration. • Government initiatives supporting digital transformation • Hosts a large base of major corporations across different sectors	• Inadequate ICT Infrastructure in rural areas. • Skills shortage in the ICT workforce. • High rates of crime and unemployment. • Limited collaboration between industry and academia in certain sectors. • High data costs impact internet accessibility. • High inequality impacting on innovation. inclusivity for the marginalised. • Political instability (political party rivalry) leading to a slow pace of policy implementation.
Opportunities	**Threats**
• Enhancing ICT infrastructure, especially in rural areas, is crucial for inclusive growth. • Expanding 5G network deployment. • Increasing demand for e-Learning solutions. • Collaborating on smart city initiatives. • Digital Inclusion - Ensuring all South • Africans have affordable access to reliable digital infrastructure • Increasing investment in R&D, commercialising digital products, and scaling work-from-anywhere platforms	• Regulatory complexities and policy uncertainties. • Competition from international players. • The Electronic Communications Amendment Bill may curtail infrastructure investment by the large Manufacturing National Organisations (MNOs). • Cybersecurity threats and data breaches.

Market Key Trends

The COVID-19 pandemic accelerated digital transformation in the country, with businesses and individuals embracing remote work, e-commerce and digital communication platforms.

- Growing popularity of remote work and digital collaboration tools.
- Expansion of fintech solutions and mobile bank services.
- Shift towards cloud-based and Software- as-a-Service (SaaS) models.
- Integration of AI and IoT technologies in various industries.
- Rising adoption of blockchain solutions for enhanced security and transparency.

- Adoption of an innovation agenda around solving critical problems related to poverty challenges to improve service delivery
- Internet of Things/Everything Digital Smart Services
- Municipal service delivery (water and electricity management)
- Connected systems (eGov)
- Smart cities (traffic management, safety and security, transport)
- Healthcare and management
- Providing adequate infrastructure through smart city services to the SMME segment looking for IT services including township and rural communities

Gauteng currently has various incubators and programmes located in all five corridors of the provinces e.g. The Innovation Hub Management Centre – satellite eKasiLabs, Tshwane University of Technology, Vaal University of Technology, Tshimologong Precinct, 22 On Sloane Global Enterprise Network (GEN), Empire Partner Foundation etc. Further, plans to establish five (5) new eKasiLabs across the five corridors (Boipatong, Carletonville, Duduza, Diepsloot, and Hammanskraal) expanding services offered at the ten (10) existing eKasiLabs, improved connectivity across the GCR with 80% access by 2024 of the population to deprived areas.
The Innovation Hub has five business incubators: Maxum Business Incubator for smart industries (IoT, big data and analytics etc.), digital services and media, Climate Innovation Centre, Bio Park, township-based eKasiLabs and mobile innovations mlab. There are currently over 260 start-ups supported by these incubators.
The rapid pace of change in ICT presents challenges to comprehending new trends, evaluating their impact and implementing appropriate policies, strategies and actions. Several key technology trends are expected to affect the demand for ICT and digital services in Gauteng. The trends also offer opportunities to utilise ICT to boost global competitiveness, enhance service delivery, drive societal transformation, and establish a knowledge-based information society.

This initiative will be based on an analysis of the current state of ICT in Gauteng and an assessment of what would be required to create a vibrant ICT and digital services industry that can significantly impact the sector. Key objectives include providing insights into emerging trends and leveraging disruptive technologies.
A primary trend across industries is the migration from analogue to digital systems. This transition is expected to accelerate as ICT increasingly adopts Internet Protocol (IP) standards, facilitating the convergence of various technologies and information systems. For instance, the consumer electronics industry is witnessing the convergence of computing, communications, and entertainment technologies. This presents an opportunity to develop a robust local ICT industry focused on creating digital products and services for domestic and export markets. Additionally, it offers the potential to utilise these products and services to enhance productivity and service delivery in industry and the public sector.

Major ICT and Digital Operators Serviced from Gauteng
5 Biggest IT Companies
Big Tech, also known as the Tech Giants, are the largest IT companies - dominant companies generally include the Big Five tech companies in the United States: Alphabet (Google), Amazon, Apple, Meta, and Microsoft.

Figure 17: Big 5 Tech Companies



The list of 50 top-performing ICT organisations with SA National presence includes 15 IT services firms, including consultancies Atos, Accenture, Capgemini, Capita and CGI.

Figure 18: 15 IT services firms with local presence in South Africa



Four key sectors – hardware, software, IT services and telecom – are based on the performance across four critical criteria: financial performance, portfolio strength, go-to-market footprint, and innovation and branding

Figure 19: Four Key Sectors in ICT

Hardware	Software	IT services	Telecom
Alcatel-Lucent	Amazon	Accenture (global)	AT&T
Apple	Google	Atos (regional)	BT
Cisco Systems	Microsoft	Capgemini (global)	China Mobile
Ericsson	Oracle	Cognizant (offshore)	Deutsche Telekom
EMC	SAP	CSC (global)	KDDI
Fujitsu	*Amdocs	HCL (offshore)	KPN
Hitachi	*Sage	IBM (global)	NTT
Hewlett-Packard	*Symantec	Infosys (offshore)	Orange / France Télécom
NEC		TCS (offshore)	Telefónica
Ricoh		Wipro (offshore)	Verizon
Samsung		*ADP	Vodafone
Toshiba		*Capita	
Xerox		*CGI	
*Intel		*Fidelity National	
*Lenovo		*Fiserv	
*Qualcomm			

8. ICT/DIGITAL SECTOR DEVELOPMENT PLAN

The vision of the strategy is to position Gauteng City Region as an ICT and Digital Services industry hub to drive the advancement of infrastructure, skills, building the capacity of SMME and unlocking the potential of township enterprises by using infrastructure development as a catalyst for economic growth through identified high growth sectors.

8.1 Strategic Pillars for Gauteng ICT/Digital Sector Development Plan

To develop and support Gauteng's ICT/Digital sector Four key pillars of development have been identified, which all have an embedded focus on township economic revitalisation, previously disadvantaged individuals, the youth and women as well as persons with disabilities.

- Infrastructure Development
- Skills Development
- Capital /Digital/ICT Innovation Development
- SMME Development

8.2 Infrastructure Development

- Improve accessibility and affordability of broadband services within Gauteng, focusing on township and rural communities.
- Develop/support high-speed broadband connectivity and data centre infrastructure.
- Priority Locations:
- Alexandra, Bekkersdal, Evaton, Kliptown, Winterveld, Sebokeng, Tembisa, Mohlakeng, Hammanskraal, Boipatong, Carletonville, Duduza, Diepsloot & Mamelodi

8.3 SKILLS DEVELOPMENT

- Building scarce ICT and digital Skills by developing or supporting ICT skills training programmes with the private and public sector.

Key Skills Development Areas:

- Coding (.NET, Python, R, C++, HTML & Java)
- Robotics (virtual and physical)
- Artificial Intelligence (Machine Learning)
- Cyber security
- Data Science and analytics
- Cloud, networking, and data centre infrastructure
- eCommerce and digital marketing

8.4 ICT/Digital Innovation Development

a. Create a Gauteng ICT Innovation Forum to support the development of IP and commercialisation of technology within the public and private sectors.
b. Develop an ICT/Digital Innovation Framework for the provincial government allowing for proof of concepts within the supply chain

Key Technology Focus:

- Internet of Things/Everything
- Municipal service delivery (water and electricity management)
- Connected systems (eGov)
- Smart cities (traffic management, safety and security, transport)
- Healthcare and management

7.5 SMME DEVELOPMENT

a. Develop ICT/Digital SMMEs from township communities
b. Develop innovation technology support facilities for SMMEs (Smart Industries Centre)
c. Develop local electronic manufacturing

Key Technology Development Areas:

- Internet of Things/Everything

- Municipal service delivery (water and electricity management)
- Connected systems (eGov)
- Smart cities (traffic management, safety and security, transport)
- Healthcare and management

9. ICT SECTOR DEVELOPMENT PLAN STRATEGIC INTERVENTIONS

Table 9: ICT Sector Development Plan Strategic Interventions

Focus Area	Intervention	Project Description
SUPPLY (skills and infrastructure) Scaling supply: ensuring the industry's ability to scale delivery of ICT services from Gauteng	Demand-led and sustainable skills pipeline	• 100 beneficiaries supported through the ICT panel of operators Tender. Developing a pool of electronic/appliance repair technicians (into other ICT sub-sectors eWaste and mobile training) • Electronic/Appliance Training Programme Budget: R1,500 000
	Physical infrastructure	• 50% Implementation of the eWaste recycling - enable job creation through the development of the envisaged e-waste collection mechanism business model and pilot project for a collection mechanism that will target township waste collectors of Waste Electrical and Electronic Equipment (WEEE), • Promote enterprise development and create employment for the participants in the entire value chain. • (e-Waste economy hubs (linked to buyback centres/ landfills) • Identification of Hubs (Cell Phone Repairs, GBS and Creatives) Budget: R500 000
DEMAND Capturing demand: Gauteng ICT and Digital Sector Strategy 2030	1 Strategy Document PR, marketing and investment promotion	• Conduct a comprehensive study to formulate and develop a Gauteng ICT and Digital Services Sector Development Plan Strategy 2030 document. • ICT Roundtable - Sector Strategy Launch for Gauteng ICT and Digital Services Sector Development Plan Strategy 2030. • ICT Sector Strategy. Budget: R500 000

Transformation	Progressing SME development within the sector	• Financial and non-financial support for emerging ICT and Digital SMMEs • Township Hubs access Pay Per Usage (PPU) i.e. furniture, desktops, PBX/IP-PBX system, etc. • Accreditation for training. • Market access for emerging ICT SMMEs

Transformation	Progressing SME development within the sector	• Financial and non-financial support for emerging ICT SMMEs • Township Hubs access Pay Per Usage (PPU) i.e. furniture, desktops, PBX/IP-PBX system, etc. • Accreditation for training. • Market access for emerging ICT SMMEs
	Progressing SME development within the sector	• Encourage ownership and managerial control to be transformed in line with BBBEE objectives. Budget: No Allocation

9. PROGRAMME/PROJECT INTERVENTION AND IMPLEMENTATION PLAN

Table 10: A summary of the Strategic Priorities Set

Outcomes	GGT2030 Statements	Outputs	Output Indicators	Annual Targets						
				Audited/Actual Performance			Estimated Performance 2023/24	MTEF Period		
								2024/25	2025/26	
ICT/Digital Economic transformation and job creation Sector Transformation (APP)	Enterprise development and support Sector Transformation	Accelerator Hubs supported in Gauteng	Hubs supported in Gauteng				New Indicator	1 Facility supported	2 Facilities supported	2 Facilities supported
		Sector programmes implemented for SMMEs supported (empowerment of black SMMEs).	Number of Sector programmes developed				1 sector development programme implemented	1 sector development programme implemented	1 sector development programme implemented	1 sector develop-
ICT/Digital Research & Development Development (OPS PLAN)		Sector Plans Strategy Developed	Number of Sector Plans Developed					New Indicator	1 sector plan strategy	1 sector plan
ICT/Digital Innovation SMME development eWaste Recycling (OPS PLAN)	Increase investment in SMMEs development to build and grow an inclusive economy	Develop/support the local eWaste Recycling	Number of local eWaste Recycling developed				New indicator	50% Implementation of eWaste recycling	100% Implementation of eWaste recycling	Support 5
Digital/ICT Innovation SMME development (OPS PLAN)	Increase investment in SMMEs development to build and grow an inclusive economy	Access to market opportunities created for SMMEs	Number of market access opportunities created for SMMEs				New indicator	1 ICT/Digital event coordinated	2 ICT/Digital events coordinated	2 ICT/Digital

Table 11: Quarterly Output indicators and targets

	Output Indicators	Annual Targets	Q1	Q2	Q3	Q4
APP	Number Hubs supported in Gauteng	1 Hubs supported in Gauteng.	-	-	-	1
OPS	Sector development programmes implemented	1 sector programme implemented by 31 March 2025.	-	-	-	1 sector programme implemented
OPS	Develop/support the local eWaste Recycling	Number of local eWaste Recycling developed	-	-	-	50% Implementation of eWaste recycling
OPS	Access to market opportunities created for SMMEs	Number of market access opportunities created for SMMEs	-	-	-	1 ICT/Digital event co-ordinated

10. CONCLUSION

The sector plan remains a dynamic and evolving document that will continue to be updated in alignment with the ICT and Digital Services Sector Strategy 2030. Effective implementation of this plan necessitates ongoing facilitation and mobilisation of collaboration and communication among stakeholders, extending beyond the initial development phase. By actively engaging stakeholders and harnessing their expertise, we can ensure that the sector plan is comprehensive, relevant, and representative of the collective contributions of the broader community.

Collaboration with sister departments, agencies, and the private sector is crucial for the successful execution of sector plans and projects. Identifying and leveraging available resources and funding opportunities will be essential to support the implementation of ICT and Digital Services sector projects. Additionally, Enterprise and Supplier Development (ESD) programmes should be led by the designated responsible agencies, utilising the allocated budget to maximise impact.

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GAUTENG PROVINCE
ECONOMIC DEVELOPMENT
REPUBLIC OF SOUTH AFRICA

2024

Transport and Logistics

SECTOR PLANS



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1. INTRODUCTION

The transportation industry has a significant impact on employment and growth and plays a vital role in the economy and society of every country. It makes it easier to move people and goods through the four primary modes of transportation: land, air, sea, and inter- or multi-modal. Most of the competitive sectors: retail, agriculture, mining, construction, and manufacturing are reliant on the transportation sector, which is thought of as a feeder network to other industries. The South African government is aware of the sector's critical role in boosting the nation's competitiveness abroad as well as the potential benefits of the nation's transportation infrastructure for promoting social and economic advancement. Compared to other African nations, South Africa has a well-established transport and logistics industry (Ngulube, 2018).

2. OVERVIEW OF TRANSPORT AND LOGISTICS SECTOR

The transport and logistics sector in South Africa is a critical component of the country's economy, providing the infrastructure and services necessary to move goods and people across the nation and beyond its borders. The sector encompasses road, rail, air, maritime, and pipeline transport, each playing a significant role in supporting trade, industry, and economic growth (Ngulube et al, 2018).

2.1 Importance of the transport and logistics sector

The transportation industry has a significant impact on employment and growth and plays a vital role in the economics and society of every country. It makes it easier to move people and things through the four primary modes of transportation: land, air, sea, and inter- or multi-modal. Most of the competitive sectors, including retail, agriculture, mining, construction, and manufacturing, are dependent on the transportation sector, which is seen as a feeder network to other businesses.

2.2 Global, National and Provincial Overview of the Transport Sector

In this section, an overview of the transport sector is provided, examining its global, national, and provincial status and developments.

2.2.1 Global overview

The transport and logistics primary factor influencing the industry's growth rates in the second half of 2023 is the slowdown in the world economy. The strain on the transportation supply chain has decreased, and the cost of shipping internationally along several important routes has again reached pre-pandemic levels.

The output of logistics and transportation worldwide rose 6.4% in 2022 but only by 5.2% this year. It is anticipated that global output growth in transportation and logistics will slow to 3.8% in 2024, despite emerging markets showing strong performance in 2023. This is brought on by a slowdown in China, a muted US economy, and the effects of global monetary policy.

Table 1: Transportation and Logistics Output per Region

Transportation and logistics output per region	2022	2023*	2024*	2025*
Global	6.4	5.2	3.8	4.7
Americas	4.8	3.3	1.3	4.2
Asia Pacific	5.2	10.1	5.7	6.2
Europe	8.5	0.3	3.1	3.0

Year-on-year, % change /*forecast – Source: Oxford Economics

USA

The current overall trends for transportation and logistics output growth show a slowdown: 3.7% in 2023 and just 0.7% in 2024. The output of land transport is expected to rise 4.6% in 2023 and then decrease to 0.1% in 2024. Transport by water is expected to decrease by 0.3% in the upcoming year, while air travel is expected to increase by 1.3% following a 10.5% rise in 2023.

Table 2: Trends for Transportation and Logistics Output Growth

Transportation and logistics output	2022	2023*	2024*	2025*
Brazil	8.4	1.7	1.0	2.0
Canada	9.5	4.8	2.8	7.6
Mexico	11.6	2.5	3.1	5.6
United States	2.3	3.7	0.7	3.8

Revenues from air and water transportation increased, but revenue from land transportation and warehousing continues to fall from their recent peaks. The sharp increase in revenue observed in the post-pandemic period is about to come to an end as price growth slows or reverses into contraction. Though transportation and logistics companies benefit from declining energy costs, labour costs have increased.

Government spending on infrastructure development will pay off in the medium run by increasing supply chain effectiveness, cutting expenses, and increasing demand for logistics and transportation services.

China

Demand cooling and lower growth expected in 2024:
China's transportation and logistics output will grow by 5.8% in 2024 and 7.9% in 2023 following a 0.8% contraction in 2022. Therefore, the demand for transportation and logistics has decreased over the past few months as the anticipated increase in consumption and spending brought about by the end of lockdowns has faded more quickly than anticipated. The decrease in foreign demand for Chinese goods has also put pressure on freight cargo transportation.

Table 3: Demand Cooling in the Transport and Logistics Sector

Transportation and logistics output	2022	2023*	2024*	2025*
Australia	12.2	4.3	0.9	2.6
China	-0.8	7.9	5.8	7.0
India	18.8	13.5	6.7	8.0
Japan	12.3	15.4	4.6	2.1

In the upcoming years, the sector will profit from government investment in infrastructure and business support. The continued growth of e-commerce will probably result in a rise in the need for courier services and storage facilities. In addition, the demand for passenger transportation services should rise because of China's economic rebalancing away from heavy industries and toward more private consumption.

2.2.2 National Overview

The transport and logistics sector in South Africa is a critical component of the country's economy, facilitating the movement of goods and people both domestically and internationally. The sector supports various industries, including mining, manufacturing, agriculture, and retail, and plays a pivotal role in trade (National Department of Transport, South Africa, 2021).

The State of the Nation in 2023 declared that the government would build a freight logistics roadmap to achieve policy promises. This would include reorganising Transnet Freight Rail to establish a distinct infrastructure manager and establishing an open access policy for the freight rail network. Therefore, to improve South Africa's logistics system in a way that successfully tackles these issues and promotes economic growth and transformation, the goal of this roadmap is to lay out an evidence-based, workable, and feasible plan. In addition to other areas of focus, the government and corporate sectors stated that the logistics focal area is where the collaboration is focused, with a concentration on developing the Freight Logistics Roadmap and providing rapid practical interventions. Considering the continuous difficulties facing the logistics sector, businesses emphasised the need for this roadmap (National Department of Transport, South Africa, 2021).

E-commerce is booming in South Africa. Market research indicates that online sales will grow three to five times faster than in other nations in 2022, sparking a gold rush for potential players. In 2022, online sales soared 30% to reach a scorching R55 billion. According to (Rand Merchant Bank, 2020) the value of e-commerce transactions in South Africa is expected to surge 150% to R225bn by 2025 in response to a marked shift in consumer behaviour and changed expectations brought about by the unprecedented events of this year. The world's largest retailer, Amazon has launched in South Africa, while Walmart is preparing for its launch after realising how profitable the country is, but they won't have

an unfair advantage. Takealot is the leading online retailer in the country, and it is owned by Naspers, the largest company in Africa. Naspers isn't taking the challenge lightly and isn't playing it safe.

Takealot has already shown its adaptability and dedication to customer convenience by launching a one-hour delivery service for a variety of products, including toys and tech devices. This proactive strategy demonstrates Naspers' resolute commitment to preserving its market-leading position.

Trends in the Transport and Logistics Sector in South Africa

The transport and logistics sector in South Africa is evolving rapidly, driven by technological advancements, regulatory changes, and shifting economic dynamics (Venter et.al, 2019). Here are some key trends shaping the industry:

Digital Transformation

- Adoption of Technology: Increasing use of digital tools and platforms for real-time tracking, route optimisation, and supply chain management.
- Big Data and Analytics: Leveraging data analytics to improve operational efficiency, forecast demand, and enhance decision-making.
- Automation and Robotics: Introduction of automated systems in warehousing and logistics, including robotic picking and packing.

E-commerce Growth

- Increased Online Shopping: The rise of e-commerce is driving demand for efficient logistics and last-mile delivery services.
- Distribution Centres: Expansion of distribution centres and fulfillment hubs to cater to the growing volume of online orders.
- Innovative Delivery Solutions: Development of new delivery models, including drone deliveries and locker systems, to improve last-mile efficiency.

Sustainability and Green Logistics

- Eco-friendly Practices: Emphasis on reducing carbon emissions using electric vehicles, alternative fuels, and energy-efficient transport solutions.
- Green Warehousing: Adoption of sustainable practices in warehousing, such as solar power, energy-efficient lighting, and waste reduction.
- Regulatory Compliance: Adhering to environmental regulations and standards to promote sustainable logistics operations.

Infrastructure Development

- Investment in Infrastructure: Ongoing investments in upgrading and expanding road, rail, and port infrastructure to support growing logistics needs.
- Public-Private Partnerships: Collaboration between the government and private sector to fund and develop critical transport infrastructure projects.
- Smart Infrastructure: Implementation of Intelligent Transport Systems (ITS) to enhance traffic management and reduce congestion.

Supply Chain Resilience

- Diversification of Supply Chains: Companies are diversifying their supply chains to mitigate risks and enhance resilience against disruptions.

- Risk Management: Increased focus on risk assessment and contingency planning to handle unforeseen events like natural disasters or pandemics.
- Local Sourcing: Shift towards local sourcing and manufacturing to reduce dependency on international supply chains.

Enhanced Connectivity

- Intermodal Transport: Growing use of intermodal transport solutions to improve efficiency and reduce costs by combining different modes of transport.
- Regional Integration: Strengthening transport links within the Southern African region to boost trade and economic cooperation.
- Cross-border Trade: Efforts to streamline customs procedures and improve cross-border logistics to facilitate smoother trade flows.

Skills Development and Training

- Workforce Training: Investment in training and upskilling programs to equip the workforce with the skills needed for modern logistics operations.
- Technology Proficiency: Emphasis on enhancing digital literacy and technical skills among logistics professionals.
- Safety and Compliance: Ongoing training in safety protocols and regulatory compliance to ensure safe and efficient operations.

Customer-centric Logistics

- Personalised Services: Focus on providing customised logistics solutions to meet the specific needs of customers.
- Improved Customer Experience: Enhancing customer experience through timely deliveries, transparent communication, and reliable services.
- Omni-channel Logistics: Development of logistics strategies that support seamless integration across multiple sales channels.

Regulatory Changes

- Compliance and Standards: Adapting to new regulations and standards in areas such as emissions, safety, and labour practices.
- Trade Policies: Navigating changes in trade policies and agreements that impact logistics and transport operations.
- Economic Policies: Adjusting to economic policies and incentives aimed at promoting growth and investment in the sector.

Security and Risk Management

- Enhanced Security Measures: Implementation of advanced security measures to protect goods in transit and reduce the risk of theft and fraud.
- Cybersecurity: Increasing focus on protecting digital systems and data from cyber threats and attacks.
- Insurance and Risk Coverage: Expanding insurance options and risk coverage to safeguard against potential losses and liabilities.
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2.2.3 Provincial Overview

Gauteng, South Africa's economic powerhouse, is a pivotal hub for transport and logistics in the

country and the broader Southern African region. With its strategic location, advanced infrastructure, and significant economic activity, the province plays a crucial role in facilitating trade and commerce (Gauteng Growth and Development Agency, 2020).

Key Components of the Gauteng Transport and Logistics Sector
Road Transport:

- Highway Network: Gauteng boasts an extensive and well-maintained road network, including major highways.
- Public Transport: Services like taxis, buses, and ride-hailing apps (Uber, Bolt) provide essential connectivity for residents and businesses.

Rail Transport:

- Passenger Rail: Metrorail Gauteng and the Gautrain Rapid Rail Network offer efficient urban and intercity passenger services.
- Freight Rail: Transnet Freight Rail operates extensive rail services, crucial for transporting goods such as minerals, agricultural products, and manufactured goods.

Air Transport:

- O.R. Tambo International Airport: Africa's busiest airport, serving as a major gateway for international and domestic flights.
- Lanseria International Airport: A secondary airport that supports business and leisure travel, with growing cargo handling capabilities.

Logistics and Warehousing:

- Distribution Hubs: Gauteng hosts numerous logistics parks and distribution centres, supporting the efficient movement of goods within the province and beyond.
- Third-Party Logistics Providers: Companies like Imperial Logistics and Bidvest McCarthy offer comprehensive logistics solutions, including warehousing, distribution, and supply chain management.

The Gauteng Transport and Logistics Master Plan (GT-LMP) addresses challenges that are faced by the sector. Challenges that were identified in the Transport and Logistics Strategy (Gauteng Provincial Government, 2022).

- Rail systems infrastructure across the sub-region is grossly inadequate, this has added more pressure on traffic volume on the limited road networks available.
- The digital technologies supporting the digitalisation of supply chain and operations management
- Crime and safety issues in Gauteng townships rollout of e-commerce opportunities
- The primary strategy to lower total commerce and supply chain expenses in Africa is to use digital tools for better inventory management.
- Traffic congestion, customer nuances, government regulation and delivery density
- The industry lacks skilled personnel in critical areas like logistics management and data analytics.

Economic Impact

- Contribution to GDP: The transport and logistics sector is a significant contributor to Gauteng's GDP, supporting various industries by ensuring the smooth flow of goods and services.
- Employment: The sector provides substantial employment opportunities, ranging from drivers

and warehouse workers to logistics managers and supply chain analysts.

- Trade Facilitation: Gauteng's infrastructure supports both domestic trade and international exports, making it a vital link in the global supply chain.

Gauteng's Transport and Logistics Sector Future Outlook (Gauteng Provincial Government, 2022) will focus on:

- Investment in Infrastructure: Ongoing projects and planned investments aim to expand and improve Gauteng's transport infrastructure, supporting economic growth and enhancing regional connectivity.
- Technological Integration: Increased adoption of smart logistics solutions and advanced technologies will drive efficiency and innovation in the sector.
- Sustainability Initiatives: Efforts to implement sustainable practices and reduce environmental impact will shape the future of transport and logistics in Gauteng.

3. LOCAL AND INTERNATIONAL TRANSPORT AND LOGISTICS POLICY DEVELOPMENTS.

- National Rail Master Plan (NRMP)

The creation of a National Rail Master Plan (NRMP) and a Private Sector Participation (PSP) Framework are among the steps in the National Rail Policy's execution that the Department of Transportation will assist. By outlining the institutional and contractual prerequisites for such participation, the PSP Framework seeks to determine the most appropriate sectors for private sector involvement in rail. Long-term strategic rail network planning and oversight will make it possible for the DOT to assume a more central role thanks to the NRMP. Statements regarding the infrastructure, rolling stock, policy-aligned capital investments, and commercial requirements of the rail market will be included in this.

- International Renewable Energy Agency

The International Renewable Energy Agency (IRENA) is an intergovernmental organisation that works to promote the widespread adoption and sustainable use of all forms of renewable energy.
IRENA has played a key role in promoting the growth of renewable energy around the world. In 2021, the global share of renewable energy in electricity generation reached 28%, up from 26% in 2020. This growth is due in part to the work of IRENA and other organisations that are helping to make renewable energy more affordable and accessible.
Transport would see accelerated electrification and an associated deployment of charging infrastructure in the coming decades. The share of electricity in final energy consumption will rise from 1% in 2018 to 49% by 2050. Electric vehicles (EVs) will account for more than 80% of all road transport activity by 2050. Such a transition implies that close to a third of all light-duty vehicle sales and a fifth of truck sales over the current decade to 2030 should be electric.

Road Assets Management Plan (RAMP)

- The Road Asset Management Plan (RAMP) of the GDRT is a Road Maintenance Planning tool mandated by the DORA Grant Framework. In terms of the Provincial Road Maintenance Grant (PRMG), it is a requirement for all road authorities (including GDRT) to develop a RAMP yearly. The RAMP is a strategic long-term (5-year program/project list) plan to optimise the allocation of limited resources to plan, operate and manage road infrastructure. It also informs the development of an Infrastructure Programme Management Plan (IPMP), a document that specifies how projects will be executed, monitored and controlled The RAMP addresses such issues as traffic volumes, road network condition (PMS), level of service, safety appraisal, financial summary, project level list & its social economic footprint within communities such as jobs created &contractor development etc.

- Smart Mobility 2030 Vision

The Smart Mobility 2030 vision proposes a future where mobility is efficient, sustainable, and accessible for everyone (Gauteng Provincial Government, 2022). This is particularly relevant for South Africa, with its growing population and increasing demand for transport and logistics solutions. Here are some key aspects of this vision:

  - Infrastructure: Building smart infrastructure that utilises technology for better traffic management, dynamic routing, and improved safety. This includes expanding public transport networks, investing in intelligent highways, and promoting active travel options like cycling and walking.
  - Operations: Optimising traffic flow through data-driven solutions, real-time congestion management, and the development of integrated ticketing systems for seamless multimodal travel. Additionally, promoting green logistics practices and efficient freight management.
  - Institutions: Fostering collaboration between government, private sector, and research institutions to drive innovation and implement smart mobility solutions effectively. This includes developing policy frameworks that support sustainable transportation models and incentivise the adoption of new technologies.

- Growing Gauteng Together 2030
  - A strategy to double the size of the province's economy, double the number of people employed, increase exports, lower poverty, and foster economic empowerment by 2030, was introduced in 2020.

- National Transport Master Plan, 2050

The focus of the project is to ensure that by 2050 transportation development will meet the needs of freight and passenger customers; to ensure accessible, affordable, safe, frequent, high quality, dependable, efficient, and seamless transport operations and infrastructure provision and development.

  - Improve accessibility: Ensure that everyone has access to safe, dependable, and affordable transportation, regardless of their location or income level.
  - Promote economic growth: Support economic development by creating an efficient and effective transport system that facilitates the movement of goods and people.
  - Reduce environmental impact: Minimise the negative environmental impact of transportation using cleaner technologies and sustainable practices.
  - Improve safety: Make roads and highways safer for all users, including pedestrians, cyclists, and motorists.
  - Promote social inclusion: Create a transport system that is accessible to everyone, including people with disabilities and those living in rural areas.

List of Key Industry Stakeholders within various segments:

Government

- Gauteng Department of Transport
- Provincial Agency: GGDA
- National Department of Transport
- Gauteng Department of Roads and Transport
- City of Johannesburg and City of Tshwane
- O.R. Tambo International Airport

Public Transport Operators:

- Metrorail Gauteng
- Gautrain Rapid Rail Network
- Transnet
- Putco and Rea Vaya
- Uber and Bolt
- Woollies
- Checkers66

Freight and Logistics Companies

- Imperial Logistics
- Bidvest McCarthy
- Grindrod Freight Services

  DHL and FedEx: Global giants of express delivery and international logistics, with significant operations in Gauteng.

4. SWOT ANALYSIS TRANSPORT SECTOR

Table 4: SWOT Analysis

Strengths	Weakness
• Existence of railways plans from government and private sector through investment opportunities • several maintained roads and highways • Operations oflocal companies with economies of scale • Supplier development programmes/ opportunities in assisting SMMEs	• Lack of sufficient rail services opportunities • Shortage of skilled SMMEs and labourers • High costof passenger and freight transportations • Lack of sufficient and effective rail services • High cost of upgrading railways and related infrastructures • Limited funding opportunities • Shortage of skills and innovative technological transport system • High transportation tariffs in comparison to global benchmarks. • Access to marketfor black SMMEs • High insurance and fuel costs • The rail sub-sector is government dominant (Monopsony) • Limited job opportunities

Opportunities	Threats
• Developmental plans in place for the improvement of dry ports • Promote the development of programms for the implementation of Technological innovation • New markets and businesses due to increased transportation modes • Government and private sector • interesttowards growth of the sector • investment opportunities in place for third party access • Development ofwarehouses/ distribution centres • Upgrading of skills aligned to the market demand	• Poor economic conditions impacting transportation development • Lack of information sharing aboutthe importance of railways in the community • Backlogs due to the lack of rail infrastructure and expansion of network • Short-term limitations because of stricter emission standards and environmental issues in the future • Limitations of government funding and support for development of transportation modes • Limited international trade opportunities in the forwarding and clearing sub sector

5. PROJECTS

Gauteng, as South Africa's economic hub, has embarked on several key projects in the transport and logistics sector. These projects are aimed at enhancing the province's infrastructure, improving connectivity, and supporting economic growth. Below are some of the major projects currently underway in Gauteng Economic Development:

5.1 Outcomes of Last-Mile Delivery Roundtable & E-commerce project

- Knowledge Sharing: Stakeholders shared their expertise, experiences, and knowledge regarding last-mile delivery operations, technology solutions, customer expectations, and regulatory issues.
- Problem Solving: The roundtable provided an opportunity to discuss challenges faced by different participants and brainstorm potential solutions collaboratively.
- Industry Collaboration: Bringing together representatives from various sectors will promote collaboration and partnerships. E-commerce platforms, logistics providers, technology vendors, and local fleet managers can find ways to collaborate for mutual benefit.
- Innovation Showcase: Participants showcased innovative technologies, delivery models, and strategies that are shaping the future of last-mile delivery.
- Market Insights: Participants gained insights into the latest market trends, consumer behaviour, and emerging technologies affecting last-mile delivery.
- Networking: The roundtable offered a platform for networking and building relationships with professionals from different segments of the industry.
- Policy Advocacy: Discussions can help identify policy gaps and advocate for changes that can improve last-mile delivery efficiency and sustainability.

Further remarks:

- We understand the challenges faced by the last-mile delivery industry

- Addressing these obstacles requires continued innovation, investment in workforce development, and collaboration between public and private stakeholders.
- By embracing innovation, fostering collaboration, and prioritising customer satisfaction, the last-mile delivery industry can pave the way for South African youth
- In conclusion, the last mile delivery industry is a dynamic and evolving field, driven by consumer demands and technological advancements, it presents exciting opportunities for growth, economic development, and sustainable practices.

5.2 Freight and Logistics

The Durban port, the Ford TASEZ (Tshwane Automotive Special Economic Zone) investment, the Gauteng-Eastern Cape (GP-EC) rail project, and the proposed high-speed train projects connecting Johannesburg to Nelspruit, Musina, and Durban are all interconnected infrastructure initiatives that hold strategic importance for South Africa's economic development. These projects not only aim to enhance the country's logistics and transport network but also to stimulate regional economic growth, improve efficiency, and contribute to sustainable development (Transnet, 2022). Interconnected Benefits:

- Integrated Supply Chains:

Port-Rail Connectivity: The Durban port and the GP-EC rail project are critical for supporting seamless supply chains, particularly for the automotive industry. Efficient port operations combined with reliable rail transport ensure that goods can move quickly and cost-effectively from production centres to export markets.

Support for SEZs: The Ford TASEZ benefits from enhanced rail connectivity and improved port infrastructure, which lower logistics costs and enhance the competitiveness of South African automotive exports.

- Economic Growth and Job Creation:

Infrastructure Investment: These projects represent significant investments in infrastructure, which are expected to create jobs both during construction and in ongoing operations.
The improved logistics and transport networks also attract further investment in industries such as manufacturing, retail, and tourism.

Balanced Regional Development: The high-speed train projects aim to stimulate growth in less developed regions, helping to reduce economic disparities and promote inclusive growth.

- Environmental and Sustainability Goals:

Reduction in Emissions: Rail transport, particularly high-speed rail, is a more sustainable alternative to road transport. By shifting more freight and passenger traffic from roads to rail, these projects contribute to reducing South Africa's carbon footprint. Green Transport Initiatives: The emphasis on modern, energy-efficient infrastructure aligns with broader national goals for sustainable development and the reduction of greenhouse gas emissions.

5.3 Green Transport Programme

Gauteng Province is a key initiative aimed at transforming the region's transportation system into a more sustainable, environmentally friendly, and energy-efficient network. Given Gauteng's position as South Africa's economic hub, this program is critical in addressing both the environmental challenges and the growing demand for efficient transport solutions.

The Programme is part of broader efforts by the Gauteng Provincial Government to reduce the carbon footprint of the transport sector, improve air quality, and promote sustainable urban mobility. The program includes several initiatives targeting various aspects of transport, including public transit, non-motorised transport, electric vehicles (EVs), and infrastructure improvements.

Job Creation: The green transport sector has the potential to create new jobs in infrastructure development, manufacturing, and technology sectors.

Economic Growth: Investment in green transport infrastructure can stimulate economic growth, attract investment, and enhance Gauteng's competitiveness as a global city region.

Environmental and Health Benefits: Reducing emissions and improving air quality can lead to better public health outcomes, reducing the burden on the healthcare system and improving overall quality of life.

6. INDUSTRY DEVELOPMENT PLANS

Taking into consideration the trends, weaknesses, and threats in the transport and logistics sector the following projects are being proposed to help advance the transport industry and promote financial inclusion in Gauteng.

Table 5: Proposed Sector Plans

Project	Project Description	Rationale
E-commerce Hub	The township-based e-commerce hub programme seeks to establish the viability and establishment of hubs that will support the growth of township-based enterprises that can adapt to e-commerce.	This is to create or increase market access for town-ship-based entrepreneurs
Last-mile Delivery	The last-mile delivery programme seeks to assist South African youth to participate in the last-mile delivery industry through skills development and job placements,	This will support the growth of township-based enterprises that participate in the industry.
Locomotives	The initiative will improve rail connectivity and economic integration but also support sustainable growth and regional development.	Ensuring the successful implementation and integration of this project will be crucial for maximising their economic and social benefits

Green transport project	The Green Transport project is meant to develop a plan to transition delivery fleets to renewable energy vehicles	Implementing a green transport project in Gauteng, South Africa's economic powerhouse, is essential for multiple environmental, economic, and social reasons.

7. CONCLUSION

Gauteng's transport and logistics sector is a cornerstone of the province's economic success, supporting a wide range of industries and playing a vital role in both national and regional trade. While the sector faces challenges, such as congestion and infrastructure maintenance, there are significant opportunities for growth, particularly in rail freight expansion, green transport initiatives, and regional integration. With continued investment and innovation, Gauteng's transport and logistics sector is well-equipped to drive economic development and maintain its status as South Africa's economic hub.

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