merSETA
MANUFACTURING, ENGINEERING AND RELATED SERVICES SETA

FINAL

SECTOR SKILLS PLAN

2024/ 2025

1 August 2023

OFFICIAL SIGN OFF

Submission of required Sector Skills Plan (SSP) Documents as per DHET Guidelines for SSP 2024/2025

It is hereby confirmed that this final version of the Sector Skills Plan takes into account all the relevant policies, legislation and other mandates for which merSETA is responsible and accurately reflects the stipulated submission requirements as communicated by the Department of Higher Education and Training (DHET).

This submission comprises merSETA Cover Letter, Continuous Improvement Plan, Draft SSP and Skills Priority Occupations which was developed in accordance with the SSP Framework produced by DHET.

Dr H. Brown

Acting Strategy and Research Executive Signature: Helen Brown Helen Brown 28/07/2023 13:26:01(UTC+02:00) .....

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Chairperson of the merSETA

Accounting Authority

COVER LETTER

1 August 2023
To: Department of Higher Education and Training, Directorate: SETA Support

The Manufacturing, Engineering and Related Services Sector Education Training Authority (merSETA) has prepared this final submission of the Sector Skills Plan (SSP) update comprising this cover letter and the merSETA Continuous Improvement Plan (CIP) and updated Research Agenda in response to the requirements as set out by the Department of Higher Education and Training (DHET) in the SSP Guidelines: Requirements for SSP Submission 2024/2025.

This letter serves to outline the processes that have culminated in the submission of the merSETA SSP.

This SSP Update 2024/25 is submitted in a subdued economic climate, with the country having experienced only marginal growth in the first quarter of 2023. The war in the Ukraine is ongoing and there are global tensions impacting on the domestic political context and strained geopolitical relations. There is high inflation, increased interest rates, rolling loadshedding and exorbitant fuel costs.

The complexities in our sector and within the local and global economy requires a skills response that will serve industry and the labour market in the short and medium term, while also being cognisant of the requirements of a longer-term outlook. The SSP has therefore reinforced the sentiments of the reimagined industrial strategy and sectoral master plans along with the ERRP (and its linked skills strategy).

The merSETA priority skills actions have not been altered as they continue to be relevant with the aim of supporting the skills for economic development.

The analysis undertaken for the SSP report draws on a range of information sources. These sources include:

- The merSETA' s Workplace Skills Plans. The WSP data includes employer information, Hard to fill vacancy (HTFV) information, Skills Gaps information, training information and employment information. Data received from 4445 mer sector entities were utilised for the SSP.
- Data and information from primary research studies and data reports developed internally, these are documented in the research process methods section of the SSP.
- Data and reports from Stats SA including Economic tables, QLFS and QES data sets from Quarter 4 of 2022 and Quarter 1 of 2023.
- DHET statistical reports, tables, and infographics on the post school sector.

Kind regards

Ms D. Mpande
Acting Chief Executive Officer: merSETA Authority

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Ms Kate Moloto
Chairperson of the merSETA Accounting

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LIST OF ACRONYMS

Acronym	Meaning	Acronym	Meaning
AA	Accounting Authority	**NQF**	National Qualifications Framework
ABET	Adult Basic Education and Training	**NSA**	National Skills Authority
APP	Annual Performance Plan	**NSDP**	National Skills Development Plan
ATR	Annual Training Report	**NSF**	National Skills Fund
ARPL	Artisan Recognition of Prior Learning	**NMU**	Nelson Mandela University
ACM	Automotive Components Manufacturing	**NMU-CIPSET**	Nelson Mandela University – Centre for Integrated Post-School Education and Training
AIEC	Automotive Industry Export Council	**NGO**	Non-governmental Organisation
BER	Bureau for Economic Research	**NEET**	Not in Employment, Education or Training
CET	Community Education and Training Collages	**OECD**	Organisation for Economic Co-operation and Development
CIP	Continuous Improvement Plan	**OFO**	Organising Framework for Occupations
CHE	Council for Higher Education	**OEM**	Original Equipment Manufacturers
CSIR	Council for Scientific and Industrial Research	**PWD**	People with Disabilities
DHET	Department of Higher Education and Training	**Plastics SA**	Plastics Federation of South Africa
DPME	Department of Monitoring and Evaluation	**PSET**	Post-School Education and Training
DSI	Department of Science and Innovation	**PSET CLOUD**	Post-School Education and Training System for Collaboration and Learning Opportunities in the Utilisation of Data
DTIC	Department of Trade, Industry and Competition	**PICC**	Presidential Infrastructure Coordination Committee /
DPRU	Development Policy Research Unit	**PFMA**	Public Finance Management Act
DG	Discretionary Grant	**PPP**	Public-Private Partnership
ERRP	Economic Reconstruction and Recovery Plan	**QCTO**	Quality Council for Trades and Occupations
ECSA	Engineering Council of South Africa	**QMS**	Quality Management System
5IR	Fifth Industrial Revolution	**QMR**	Quarterly Management Report
4IR	Fourth Industrial Revolution	**RPL**	Recognition of Prior Learning
GBV	Gender Based Violence	**R&D**	Research and Development
GDP	Gross Domestic Product	**RMI**	Retail Motor Industry

Acronym	Meaning	Acronym	Meaning
HTFV	Hard to Fill Vacancies	**RAP**	Retrenchment Assistance Programme
HEI	Higher Education Institutions	**SET**	Science, Engineering and Technology
HEMIS	Higher Education Management Information System	**SETA**	Sector Education and Training Authority
HSRC	Human Sciences Research council	**SSP**	Sector Skills Plan
IPAP	Industrial Policy Action Plan	**SLA**	Service Level Agreement
ISO	International Organisation of Standardisation	**SMME**	Small, medium and micro-enterprises
KM	Knowledge Management	**SA**	South Africa/South African
LMI	Labour Market Intelligence	**SAQA**	South African Qualifications Authority
merSETA	Manufacturing, Engineering and Related Services Sector Education and Training Authority	**SIC**	Standard Industrial Classification
MoA	Memorandum of Agreement	**Stats SA**	Statistics South Africa
MoU	Memorandum of Understanding	**SEIFSA**	Steel and Engineering Industries Federation of South Africa
M&E	Monitoring and Evaluation	**SP**	Strategic Plan
NAMB	National Artisan Moderation Body	**TVET**	Technical & Vocational Education and Training College
NAACAM	National Association of Automotive Component Manufacturers	**TVETMIS**	Technical Vocational Education and Training Management Information System
NAAMSA	National Association of Automotive Manufacturers in South Africa	**TLS**	Training and Lay off Scheme
NCV	National Certificate (Vocational)	**TIMSS**	Trends in Mathematics and Science
NDP	National Development Plan	**WPSET**	White Paper on Post-School Education and Training
NPPSET	National Plan on Post School Education & Training	**NPC**	National Planning Commission

RESEARCH PROCESS AND METHODS

This SSP was developed at a time when the war in Ukraine triggered different waves that affect world economies, import and export trade, commodity prices, and patterns of production in the labour market including the supply and demand of skills. The main data sources used include merSETA Workplace Skills Plan (WSP) data (2022), primary research data from research conducted by the merSETA, data from Statistics South Africa (Stats SA), the Bureau of Economic Research (BER) and National Accounts data. Sector consultations in the form of Chamber workshops and surveys, SSP committee workshops, and interview data are incorporated. Desk research emanating from various forms of literature, including sectoral reports, news articles, magazine articles, national policies and plans as well as sectoral master plans were utilised.

The merSETA endeavours to be up to date with the contemporary trends that impact skills development. Therefore, in its endeavour to make informed decisions for skills planning, the merSETA conducts and commissions relevant research studies that contribute to developing the Sector Skills Plan. The research conducted ranges from topics that look at both at the global scale and domestic scale in order to understand skills requirement of the current economy, forecasting future skills requirements for the manufacturing, engineering and related industries and assessing the feasibility of employing new ways to facilitate training in the Post-School and Education ecosystem. The table below illustrates the research conducted by the merSETA that feed into the development of the SSP:

Table 1: Research Projects

Topic	Method	Purpose	Data Collection	Sample Size/Data Source	Timeframe
Anticipating Labour and Skills need for the manufacturing, engineering and related industries in South Africa	Mixed Methods	Understand the labour and skills requirements of South Africa's industrial policy and current economic climate as well as, the impact of COVID-19, as they pertain to the mer-sectors	Interviews Online Survey Workshop	merSETA Stakeholder Database 250 Survey Responses 60 Key Informant Interviews	10 March 2021 -28 February 2022
Simulation Training and Learning Factories to Unlock More Training Spaces in The Mer Sector: A Research Study	Mixed Method	To better understand the possibilities of simulated training across all the merSETA sub-sectors which will inform strategic decision-making in terms of potential partnerships and projects to institute such training	In-depth interviews Online survey	SDFs, PSET Institutions 165 Responses 23 Interviews	29 March 2021 – 30 October 2021
South African Automotive Artisan Technology and Skills Review	Mixed Method	An investigation of the underlying causes of artisan skills mismatches in the South African automotive sector	Secondary Quantitative Data Analysis Case Studies	WSP/ ATR data 2014 - 2019 OFO Code 2015	April 2020 - April 2021
Atlas of Occupations for the merSETA Sectors	Qualitative	To provide the learners, workers and skills planners with a reference guide to occupations and jobs that are in demand in the mer sector	Interviews and focus groups	merSETA Stakeholder database 29 Key Informant Interviews 6 Chamber Focus Groups	March 2019 – December 2020
Learning work through a student-driven association	Qualitative	To develop new and innovative ways of responding to youth unemployment and WBL among TVET College students	Case studies, interviews, focus groups	7 TVET Students in the association and desktop research	July 2018 – March 2021

Topic	Method	Purpose	Data Collection	Sample Size/Data Source	Timeframe
Artisan skills imbalances in the metal industry and artisan recognition of prior learning to address potential shortages	Mixed Methods	To assess whether there is a shortage of artisans in the metal industry and establish how useful is artisan recognition of prior learning (RPL) as a mechanism. to address any potential shortage of artisans.	Literature Review Secondary Quantitative data, Online Survey	2 400 metal chamber database sample	April 2018 - June 2019
Gender Based Violence in the Metal and Engineering Industry	Mixed Methods	To investigate the extent of GBV in the metal and engineering industry,	Literature Review Secondary Quantitative data, Online Survey	17 HR Managers in metal firm 4 employees (victims) 100 online survey respondents	April 2021 - January 2022
Towards the Development of an Industry-led Metals Skills Plan: Needs, Priorities and Actions	Mixed Methods	To identify the current and future industry skills needs and propose a course of action	Online Survey Interviews	50 surveys, 23 interviews with metal industry experts.	April 2020 -February 2021
What is the shortfall or lack of plastics technicians and plastics engineers in South Africa and what can be done to address the problem?	Mixed Method	to establish the shortage of plastics technicians and plastics engineers in South Africa and to establish what can be done to address the problem.	Interviews	41 interviews WSP/ART Desktop research	28 February 2018 – March 2020

EXECUTIVE SUMMARY

The SSP is structured in line with DHET SSP Framework. Chapter one of the SSP locates the manufacturing sector within the broader SA economic outlook and demonstrates the critical contributions of the sector to South Africa's GDP and the country's global competitiveness. While the chapter shows an increase in unemployment in the last year because of the adverse economic effects of the global tension, the Ukraine war and domestic load shedding, it further demonstrates how the sector is adapting to technological transformation and complexity resulting from the COVID-19 pandemic. The chapter also highlights the need for more youth, women, and people with disabilities to participate in the labour market and thus their access to and uptake of skills programmes and training interventions is important.

Chapter two actively promotes the skills planning agenda Reconstruction and Recovery Plan, the, and National Youth Policy among others. This SSP identifies issues pertinent in the industry that underpin skills planning such as the global trends and the changing world of work and further elaborates on the skills requirements of the mer sector workforce who will need upskilling and reskilling to remain in employment and have the requisite skills to take up employment opportunities within the sector as well as other sectors that require skills aligned to the merSETA scope of coverage.

Chapter three examines occupational shortages and skills gaps to inform the sectoral priority occupations and interventions (there were previously linked to PIVOTAL programmes). In examining occupational shortages and skills gaps, the analysis interrogates what occupations are hard-to-fill, and why these occupations are hard to fill. This is followed by an investigation into the major skills gaps that exist in the manufacturing sector at the major occupational level. Given the mer sector occupational profile, careful consideration is needed to prepare workers for skill that will be needed in the near future. The merSETA, applies continuous research and development (R&D) and innovation to enhance the system, to ensure the collection of quality time series data and to broader research engagement to best inform skills planning. Chapter 3 also analyses the extent and nature of skills supply from the PSET system as these give an indication of the pipeline of skills entering the labour market.

Chapter 4 investigates the current merSETA partnerships and elaborates on planned r future partnerships to enhance skills development in the manufacturing sector. It further outlines strategic partnerships aligned to national priorities, including the Presidential Youth Employment Initiative. Partnerships with employers continue to ensure that programme implementation and workplace learning. The merSETA will continue to monitor its partnerships to recognise key success and mitigate challenges. In terms of monitoring and evaluations, chapter 5 presents the merSETA approach to M&E and how data can be used to inform skills planning within the manufacturing sector, and how the merSETA, can be more proactive in the use of evaluation results to inform strategic planning and continuous improvement of skills development initiatives. The SSP concludes with its skills priority actions which is aligned to national priorities and sectoral requirements for growth with skills as a key enabler. To this end the merSETA will continue to focus on skills aligned to localisation, industrialisation, community development, new technologies, the changing world of work and prioritising participation by women, the youth and persons with disabilities.

CHAPTER 1: SECTOR PROFILE

1.1 INTRODUCTION

The purpose of this chapter is to provide an economic and labour market outlook for the mer sector and to comment on its implications for skills development. The key data sources utilised comprise merSETA WSP data (2022), primary research data from research conducted by the merSETA, data from Statistics South Africa (Stats SA), the Bureau of Economic Research (BER) and National Accounts data. Sector consultations in the form of Chamber feedback, SSP workshops, and interview data are incorporated. Desk research emanating from various forms of literature, including sector master plans were also utilised.

1.2 SCOPE OF COVERAGE

The sectors which comprise the merSETA scope of coverage are manufacturing; wholesale, construction; retail and motor trade; and financial intermediation, insurance, real estate, and business services sectors. The sectors are arranged in 6 Chambers or sub-sectors which describes the industrial activities of enterprises according to their Standard Industrial Classification (SIC) codes at the 3-digit level.

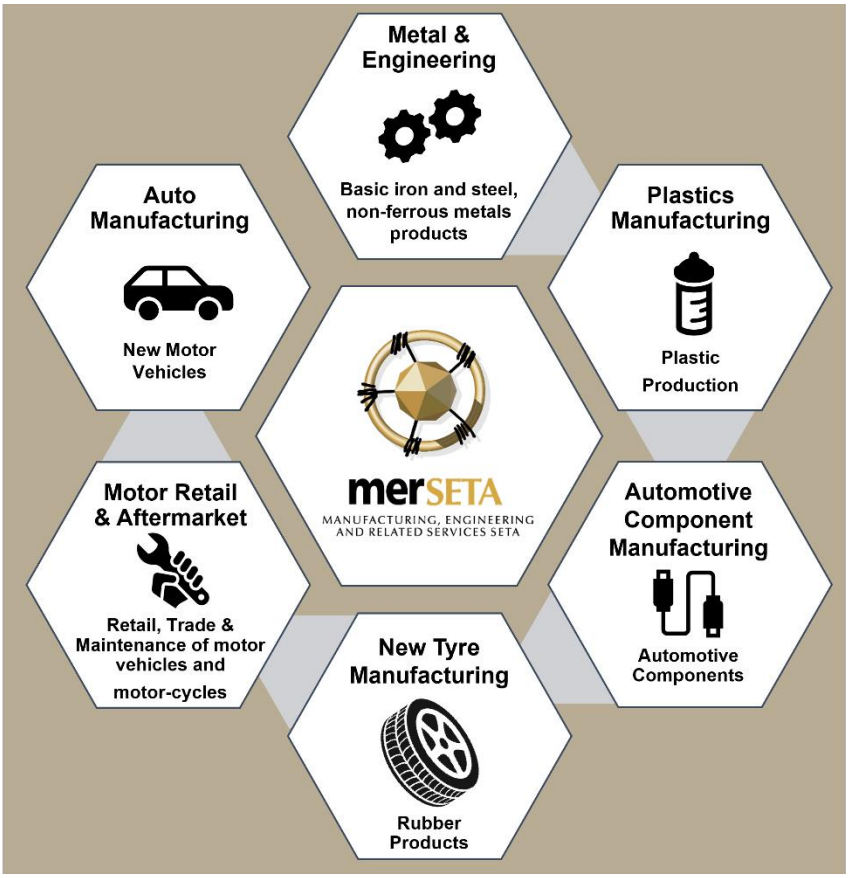


Figure 1: Scope of Coverage, Chambers and SIC codes.

Table 2: Chambers & SIC Description

The metals sector represents the largest of the sectors under the merSETA scope of coverage. The metal and engineering sector entails capital equipment, foundries, transport equipment, metal fabrication and related sub-sectors. The metal and engineering sector is an important sector in manufacturing because it produces machinery and equipment used in production and critical to all forms of manufacturing inputs.

SIC CODES & Description			
351	Basic iron and steel	371	**Electronic valves and tubes and other electronic components**
352	Basic precious and non-ferrous metals	372	Television and radio transmitters and apparatus for line telephony and line telegraphy
353	Casting of metals	373	Television and radio receivers, sound or video recording or reproducing apparatus and associated goods
354	Structural metal products, tanks, reservoirs, and steam generators	374	Medical appliances, instruments & appliances for measuring, checking, testing, navigating and for other purposes, except optical instruments
355	Other fabricated metal products; metalwork service activities	375	Optical instruments and photographic equipment
356	General purpose machinery	380	Transport equipment
357	Special purpose machinery	384	Building and repairing of ships and boats
358	Household appliances N.E.C.	385	Railway and tramway locomotives and rolling stock
359	Office, accounting, and computing machinery	386	Aircraft and spacecraft
361	Electric motors, generators, and transformers	503	Building installation
362	Electricity distribution and control apparatus	504	Building completion
363	Insulated wire and cable	614	Wholesale trade in non-agricultural intermediate products, waste, and scrap
365	Electric lamps and lighting equipment	860	Computer and related activities
366	Other electrical equipment N.E.C. and	882	Architectural, engineering and other technical activities

Auto

South Africa's automotive manufacturing sector comprises mainly of manufacturers of fully built-up vehicles. It is an important sector to the country and contributes approximately 4,9% GDP and is the biggest single sector contributing just under 20% of total manufacturing output (NAAMSA, 2021). The 7 OEMS (Original Equipment Manufacturers), namely: BMW, Ford, Isuzu, Mercedes-Benz, Nissan, Toyota, and Volkswagen (VW) are mainly located in the Eastern Cape, KwaZulu Natal and Gauteng, with a supplier base dispersed in other provinces.

SIC CODES & Description	
381	Motor vehicles

Auto Components

Automotive component manufacture involves the production of components used in the assembly of new motor vehicles and aftermarket accessories. This includes manufacturers and suppliers of:

- Original Equipment (OE) components to vehicle assembly plants only
- OE and P&A, and aftermarket/replacement components
- Accessories and replacement parts
- Allied products supplied to vehicle assembly plants and other sectors of industry e.g., steel
- Related/support products to the motor industry

SIC CODES & Description			
382	Bodies for motor vehicles, trailers, and semi-trailers	383	Parts and accessories for motor vehicles and their engines
387	Transport equipment N.E.C.		

Motor Retail

The motor retail sector is a key part of the automotive sector. It is this sector that is responsible for the retail sale, maintenance and repair of motor vehicles, parts and accessories.

SIC CODES & Description			
631	Sale of motor vehicles	632	Maintenance and repair of motor vehicles
633	Sale of motor vehicle parts and accessories	634	Sale, maintenance and repair of motorcycles and related parts and accessories
New Tyre			
The new tyre sector plays a significant role in the automotive assembly and component manufacturing sector in South Africa. The different types of tyres produced in the country include tyres for passenger, commercial, agricultural, mining, construction and industrial vehicles and associated machinery (Bridgestone, 2019). There are four multinational manufacturers of tyres in South Africa, which includes Goodyear, Bridgestone, Continental Tyres and Sumitomo Rubber.			
SIC CODES & Description			
337	Rubber products		
Plastics			
South Africa's plastics manufacturing sector is composed of various industries. These are: manufacture of basic chemicals, manufacture of plastic products, and recycling. The plastics sector is well developed in South Africa and caters to both domestic and export markets. While plastics products are for the most part concentrated in the packaging, building, construction and automotive industries, there are also applications in textiles, electronics and electrical applications, mechanical engineering, and agricultural industries. Recycling is also a key component of the sector.			
SIC CODES & Description			
334	Basic chemicals	338	Plastic products
390	Furniture, manufacturing N.E.C.; recycling	395	Recycling N.E.C.

1.3 KEY ROLE PLAYERS

The diverse skills development needs of the South African economy require a well-coordinated and integrated post school system. This system should also be inclusive and is shaped by 3 key policy documents adopted for the skills development sector. These are the NPPSET (2019-2030), the White paper on Post School Education and Training (WPPSE) and the National Skills Development Plan (NSDP).

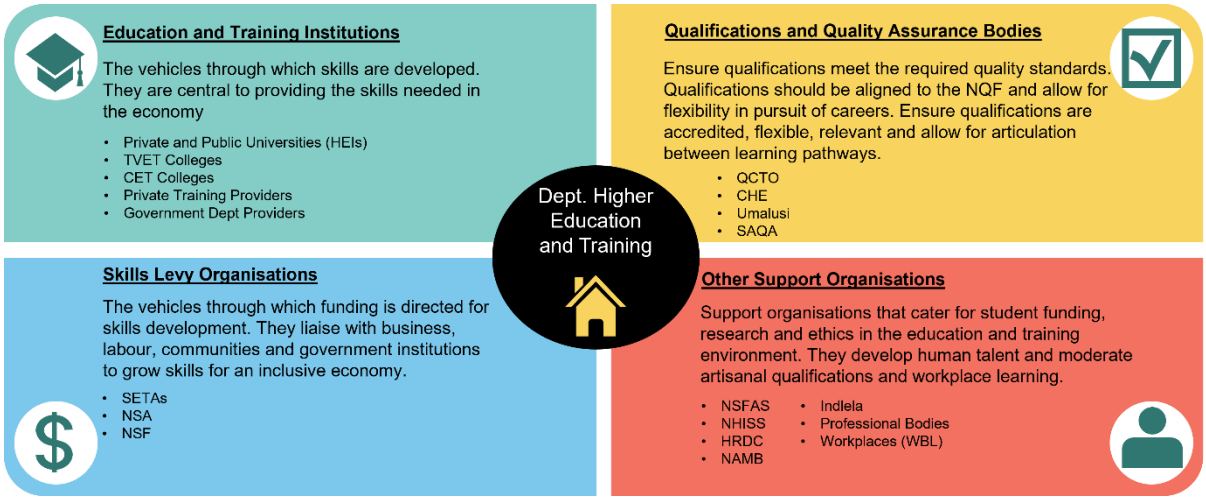


Figure 2: PSET Sector Role Players

The central player in the PSET system is the DHET. The DHET is tasked with providing a differentiated and fully inclusive post schooling system that provides relevant education and training in alignment with the development goals of South Africa. All entities in the PSET system including the 21 SETAs, NSF and NSA, qualification and quality assurance bodies, all public and private HEIs, TVET colleges and CET colleges and other support organisations are reporting entities to the DHET.

Although SETAs form a key component of the overall PSET sector, they have in turn a set of key partners or role players to enable them to fulfil their mandate. The key role players in skills development for the mer sector comprise government, industry bodies, organised employers, labour unions and civil society. It is with these entities that the SETA forms relevant partnerships to ensure it fulfils its mandate. Education and training

institutions are the key mechanism through which skills are provided to the sector in partnership with these key roleplayers.

In addition, the merSETA has recognised the importance of the social economy in its scope of coverage as organisations in these sectors contribute to the labour market and the economic fabric of society such as cooperatives, non-governmental organisations, mutual benefit societies and social enterprises. All these role players have a critical role to play in building an integrated PSET system that is responsive to the needs of employees, employers, and national priorities. This is core to the implementation of the NSDP. The NNPSET, which derives its mandate from the WPPSET is a roadmap for the development and strengthening of post-education and training from 2019-2030.

The plan acknowledges that we do not have adequate and diverse education opportunities for all those who leave school (on completion of grade 12 or earlier). Therefore, the central importance of the plan is the recognition that more post school opportunities are needed outside the higher education sub-system. The NPPSET focuses on education in high demand that are needed for economic growth, will provide opportunities for employment of large numbers of people and support social development priorities. Therefore, PSET system must work collaboratively across all platforms to ensure that the labour market and the economic trajectory of the country is monitored such that relevant education and training interventions can be implemented. Taking this into account, the NSDP tasks SETAs with:

- Understanding the demand and signalling the implications for supply.
- Steering the system to respond to skills supply.
- Supporting the development of the intuitional capacity of public and private education and training institutions.
- Performing system support functions and managing the budgets and expenditures linked to the SETA mandate.

The role players highlighted below work together within the PSET system to enable the merSETA to achieve its mandate, they all play and integral part in the supply of relevant skills into the labour market and through the partnerships approach adopted by the merSETA to ensure the outcomes of the NNPSET, WPPSET and NSDP are brought to fruition. The NSDP outcomes linked to the key players are also indicated.

Figure 3: NSDP Outcomes

Table 3:Key Role Players in PSET

ORGANISATION TYPE	NAME OF ORGANISATION	ROLE	Link to NSDP outcomes
Government Departments	Department of Higher Education and Training (DHET)	Government's role is to ensure adequate policies and legislation are in place to facilitate sustainable economic development as well as address social issues. These institutions drive national priorities and skills development should be rolled out in support of the national vision.	**Outcome 2** Legislative and policy directives for industry have a key impact of skills and skills development. Industrial plans and policies set the direction for economic growth and in turn sill provision is essential.
	Department of Trade, Industry and Competition (DTIC)		
	Department of Science and Innovation (DSI)		
	Department of Environment, Forestry and Fisheries		
	Department of Planning, Monitoring & Evaluation (DPME)		
	Department of Small Business Development		
Education and Training Institutions	Higher Education and Training Institutions	Responsible for skills provision. They are the key delivery mechanisms for a differentiated PSET system and should be supported to provide skills to support economic growth.	**Outcomes 1, 2 and 3** The SETA partners with these institutions to implement their mandate along with industry partners.
	TVET Colleges		
	Community Education and Training Colleges		
Employer Organisations	The Steel and Engineering Industries Federation of Southern Africa (SEIFSA)	Employer organisations represent members in collective bargaining, data and information gathering and skills development. In line with many of the national priorities, these organisations are important for the regulation of the sector as well as ensuring the interests of employers and workers.	**Outcomes 1, 2, 3, 4, 7 and 8** The SETA partners with these institutions to implement their mandate along with education and training partners. Research is conducted in partnership with these organisations to ensure relevant training is provided for the labour market. Special projects and innovation projects are conducted to ensure cutting edge solutions and R&D for the sector.
	Automobile Manufacturers Employers Organisation (AMEO)		
	Retail Motor Industry Organisation (RMI)		
	National Association of Automobile Manufacturers (NAAMSA)		
	National Association of Automotive Component and Allied Manufacturers (NAACAM)		
	Automotive Industry Export Council (AIEC)		
	The South African Tyre Manufacturers Conference (SATMC)		
	Plastics South Africa (Plastics SA)		
Professional Organisations	Engineering Council of South Africa (ECSA)	Its core functions are the accreditation of engineering programmes, registration of persons as professionals in specified categories, and the regulation of the practice of registered persons. Professional organisations ensure that professionals are of a high quality and that their skills are up to date and relevant.	**Outcomes 1, 2 and 3** Accreditation of programmes and professional registration of engineers in line with priority skills and effective candidacy programmes.
Bargaining Councils	National Bargaining Forum (NBF) Automotive Sector	The Labour Relations Act provides for the self-regulation of industries through the medium of Bargaining Councils. Bargaining Councils deal with collective	**Outcomes 3 and 7** Collective bargaining to regulate the sector and remuneration of apprentices. Works in partnership with unions. Fair remuneration
	Metal and Engineering Industries Bargaining Council (MEIBC)		

ORGANISATION TYPE	NAME OF ORGANISATION	ROLE	Link to NSDP outcomes
	Motor Industry Bargaining Council (MIBCO)	agreements, solve labour disputes, establish various schemes, and make proposals on labour policies and laws (DoL, 2016).	reduces attrition and ensures skills levels in the country.
	Bargaining Council for the New Tyre Manufacturing Industry		
Labour Organisations	National Union of Metalworkers South Africa (NUMSA)	Unions play a significant role in advocating and fighting for worker's rights, skills development and improving conditions of employment and advocating for transformation among other things.	**Outcome 7** Encourage and support worker-initiated training - driven by critical networks of employee representatives and unions officials.
	Chemical Energy Paper Printing Wood and Allied workers Union (CEPPWAWU)		
	Metal and Electrical Workers Union of South Africa (MEWUSA)		
	Solidarity		
	LIMUSA (Metal Workers Trade Union)		
	United Association of South Africa (UASA)		
	Motor Industry Staff Association (MISA)		
Civil Society	Non-governmental Institutions (NGOs)	These organisations play a significant role in communities and assist the state in terms of providing services required by the community. These organisations are partners for skills development within communities.	**Outcomes 1, 2 and 3** The SETA partners with these institutions to implement their mandate along with industry and education partners, particularly in communities.
	Community Based Organisations (CBOs)		
	Faith Based Organisations (FBOs)		

The key role players identified above play a critical part in realising the outcomes of the NSDP (Government Gazette, 2019). Many of the organisations are partners with the merSETA in ensuring that skills are improved, there is adequate career awareness, there are links between education and the workplace, workers embark on lifelong learning and that there are opportunities to support entrepreneurship and cooperative development through skills development. A critical component of the NSDP is the need for community development through the community college system and not for profit civil society organisations and social change entities.

The social economy is integral to community development, fostering social cohesion, inclusion, and solidarity (National Social Economy, Draft Green Paper, 2019). Compared with other countries, South Africa has a relatively low skilled workforce, with a smaller proportion of the community achieving a secondary level education. Statistics show that those with little education are more likely to unemployed than their more highly skilled counterparts (OECD, 2019). The OECD (2019) have reported that there exist very few opportunities for adults to attain additional skills through formal education and training or through the skills levy system. To this end the role of community colleges becomes ever more important to support those in the informal and social economies. The role of civil society and the community colleges will require additional focus and support to assist with skills interventions in a post COVID-19 economy.

1.4 ECONOMIC PERFORMANCE

The overall economic situation in South Africa remains weak. While year on year GDP growth slowed to 2% in 2022 from 4.9% in 2021 and is projected to remain below 2% in 2023. Quarter on quarter it declined by 1.3% at the end of December 2022, plunging South Africa into a technical recession[1], however, real GDP expanded by 0.4% in quarter 1 of 2023 with the manufacturing and finance sectors being the main drivers of growth. Out of

[1] This means that South Africa experienced two consecutive quarters of negative economic growth, which is the definition of a recession (GDP contracted by 0.7% in the fourth quarter of 2022).

10 sectors, 8 contributed positively in the first 3 months of the year (Stats SA, 2023). The figure below demonstrates the sectors that grew in quarter 1 of 2023.

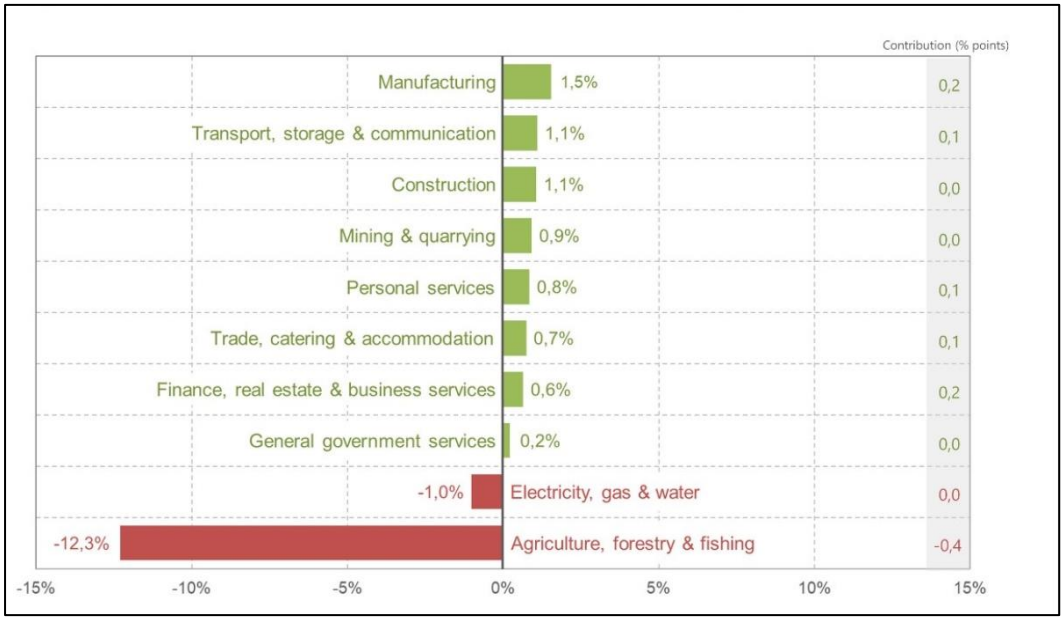


Figure 4: Industry Growth Rates Q1 2023 (Statistics SA)

Inflation has risen, reaching 5.7% in March 2023. This poor outlook comes on the back of the COVID-19 pandemic, the energy crisis, high government debt and state corruption. The economy overall has not demonstrated strong indications of growth and is therefore unlikely to produce jobs to substantially ameliorate devastating unemployment and poverty. Real GDP continues to exhibit low growth, lagging the results seen in the first quarter of 2020 and is in fact demonstrating levels below that of 2017 (SARB, 2022).

The loadshedding impact has been devastating for the manufacturing industry. Manufacturers have cited this energy crisis as the most significant contributor to reduced manufacturing activity in 2022[2]. According to the Reserve Bank, loadshedding has resulted in a cost of R900 million per day, with the loss in jobs in quarter 4 of 2022 directly linked to the loadshedding issue[3].

In addition, the conflict in Ukraine is having a significant impact on South Africa, both economically and politically. Economically, the conflict is driving up the price of food and fuel, which is putting a strain on household budgets and businesses. The conflict is also disrupting global supply chains, which is making it more difficult and expensive to import goods and services. This is having a negative impact on economic growth and job creation. Politically, the conflict is dividing South Africa's foreign policy establishment. Some officials are calling for South Africa to take a more active role in condemning Russia's actions, while others are urging caution and a focus on mediation. The conflict is also exacerbating tensions between South Africa and its allies in the West, who have imposed sanctions on Russia.

Imports and Exports

South Africa has a trade deficit, meaning that it imports more goods and services than it exports. The trade deficit is a major challenge for the South African economy, as it puts a strain on the country's foreign exchange reserves. There are several factors that contribute to South Africa's trade deficit. One factor is the country's reliance on imports of energy and other raw materials. South Africa is a net importer of oil, coal, and other energy sources. This means that the country must import these goods to meet its energy needs.

[2] https://www.engineeringnews.co.za/article/the-manufacturing-sector-pays-a-high-price-for-persistently-high-levels-of-load-shedding-2023-03-07

[3] https://www.moneyweb.co.za/in-depth/nedbank-manufacturing/how-sa-manufacturers-are-handling-the-load-shedding-disruptions/

The South African government is taking a number of steps to address the trade deficit. One step is to focus on increasing exports of manufactured goods. The government is also providing incentives for businesses to invest in research and development, which will help to create new products and services that can be exported.

The South African government is also working to improve the country's infrastructure, which will make it easier and cheaper to import and export goods. The government is also working to improve the country's education system, which will help to create a more skilled workforce that can produce goods and services that are competitive in the global market.

1.4.1 Metals & Engineering

The metals & engineering sector constitutes 26.15% of the manufacturing sector based on output, representing the metal production, fabrication, the heavy engineering value chain and the plastics product sub-sector.

The metals and engineering sector outlook is negative, with the sector expected to contract by 2.2% according to SEIFSA. This sector which is used as an indicator of the overall South African economy indicates some tough times ahead. Despite reporting that in December 2021 that production levels had recovered to pre-COVID levels (Engineering News, 2022), the bleak outlook comes on the back of loadshedding, poor service delivery, and a global economic downturn (Business live, 2023).

SEIFSA further laments that the loadshedding crisis is the biggest immediate and long-term threat to economic development in South Africa (SEIFSA, 2023). The sector has been locked in a structural recession for many years, and despite improvements since the onset of the COVID-19 pandemic, production is still 1.6% below pre-COVID levels.

1.4.2 AUTOMOTIVE SECTOR

The automotive industry contributed 4.3% to South Africa's GDP in 2022. This represents a decrease from 4.9% in 2020, but an increase from 3.8% in 2019. The decline in 2020 was due to the COVID-19 pandemic, which had export demand, particularly from Europe and the United States.

The automotive industry is a major employer in South Africa, with over 500,000 people directly employed in the sector. It is also a major contributor to the country's exports, ranking 5th among exporting sectors and accounting for 18.1% of exports.

Financially distressed conditions of the South African population are reflected in the reduced domestic vehicle sales of 0.6% in March 2023. The ongoing challenge of the microchip shortage in the sector has impede the sectors capacity to produce vehicles[4]. NAAMSA reports that this is the result of consumers feeling the pinch in terms of the rising costs of living amid increased interest rates and inflation in early 2023. Vehicle production however is increasing with export sales growing by 3.1%. Further positive developments are reflected in the increased sales of new energy vehicles (NVs) which increased by 18.8%.

1.4.3 Plastics Sector

The plastics sector reported a growth rate of 4.7% after the COVID-19 pandemic in 2021, however these gains may be short lived due to the rolling blackouts in South Africa.

As part of government's reimagined industrial policy, a Plastics Industry Master Plan has been developed to put the industry on a growth trajectory. For the purpose of the Master Plan, three measurable factors have been selected as key objectives, reducing the trade deficit to less than 10% of the total value of the industry by 2035, maintaining or improving the tons per employee which equates to 30 tons per formal job in 2018, and finally to reduce the visible amount of plastics litter in the environment and to increase recycling rates to 60%. Realising the masterplan's aspirational vision and associated objectives requires institutional coordination, as well as a range of policy and regulatory interventions.

1.4.4 The Informal, Social and Township Economy

[4] https://www.businesslive.co.za/bd/life/motoring/2022-12-02-car-semiconductor-shortage-is-easing-says-leading-supplier/#:~:text=Microchip%2Dinduced%20supply%20shortages%20have,to%20date%20compared%20to%202021.

The scourge of poverty and unemployment has devastating effects on the majority of South African families, with the burden weighing heaviest on women, youth and the disabled. Geography, education, skills, and opportunities all play a role in the socioeconomic outcomes of South Africans, those in rural areas, townships and the inner-city slums rely on the informal economy for provision of livelihoods.

This SSP is confined to the scope of mer sector coverage, however even in the mer sector there are many activities aligned to the informal and social economies. This is particularly true as we navigate through the COVID pandemic, many workers have become unemployed and may need to rely on opportunities in the informal sector. The difference with businesses in the informal economy is that they do not contribute to the national fiscus through taxes, and it is an unregulated sector, but they play a vital role in livelihoods, employment, and income for approximately 2.5 million workers (excluding agriculture), which represents about 17% of total employment (Stats SA, 2021).

Informal business operates across many industries, offering primarily retail goods and services that the meet various social and economic needs of communities. Most businesses are characterised as spaza shops, fast food outlets, bakeries, shebeens and hawkers. Other activities include backroom rentals, minibus taxi operators, mechanics and panel beaters, metal fabricators, childcare services, barbers, and hair salons among others[5]. The merSETA has done work on understanding youth in rural areas and the informal sector as well as understanding small and micro enterprises. Currently there is a study under way to better understand the capabilities of TVET College and CET College facilities to support local economic development and budding businesses within communities.

1.4.5 Emigration of Skills due to poor economic outlook

South Africa faces the loss of skills through emigration due to the current economic climate and limited opportunities in the labour market.

A recent news article has stated that businesses are having to deal with skilled labour emigrating by seeking employment in oversees destinations as well as virtual emigration which sees skilled workers taking up opportunities to work remotely for international companies without a footprint in SA. The notion of a “brain drain” has once again placed pressure on the business sector due to a mass exodus of talent, particularly among skilled youth and graduates (it is estimated that as much as half of highly skilled graduates could emigrate in the upcoming years)[6]. Many South Africans are emigrating to the UK, Australia, New Zealand and Canada. In the UK alone, 250 000 people list South Africa as the country of their birth. Virtual emigration is also high with many data scientists and other skilled individuals opting to work remotely for global companies.

1.5 EMPLOYER PROFILE

WSP data collected in the 2023 mandatory grant window yielded responses from 4445 companies[7], which is less than the 4705 companies who submitted in 2022.

More than half of all enterprises are represented by the metals chamber followed by the motor retail chamber at 54%. The plastics sector is represented by 8% of the companies and the ACM sector by 3.4%. The auto sector (assembly) and new tyre sectors comprise of 13 and 5 enterprises respectively. The auto sector (assembly) comprises the 7 South African OEMs as well as bus and truck manufacturers. New tyre chamber is comprised of the 4 tyre manufacturers and enterprises in manufacturing rubber products. The mer sectors comprise 65% small, 23% medium and 13% large companies as demonstrated in the table below.

[5] https://www.investec.com/en_za/focus/economy/thriving-township-economy-vital-to-sas-economic-revival.html

[6] https://businesstech.co.za/news/lifestyle/694439/double-emigration-blow-for-south-africa-leaving-local-businesses-desperate-for-critical-skills/

[7] merSETA WSP/ATR data 2023 – statistics presented for employers and employees in the sector are based on grant submissions.

Table 4: Number of Companies by size and chamber

Chamber	Large (>150)		Medium (50 - 150)		Small (1 - 49)		All Companies	
	No.	% (row)	No.	% (row)	No.	% (row)	No.	% (column)
Auto	11	85%	2	15%		0%	13	0%
ACM	29	18%	34	21%	100	61%	163	4%
Metal	331	14%	548	23%	1535	64%	2414	54%
Motor Retail	128	8%	285	19%	1109	73%	1522	34%
New Tyre	5	71%		0%	2	29%	7	0%
Plastics	75	23%	113	35%	138	42%	326	7%
Grand Total	**579**	**13%**	**982**	**22%**	**2884**	**65%**	**4445**	100%

The majority of mer sector companies operate in the provinces of Gauteng (47%), Western Cape (17%), KZN (13%), and Eastern Cape (8%). Metal, motor retail, and plastics sectors also have representation across the other provinces.

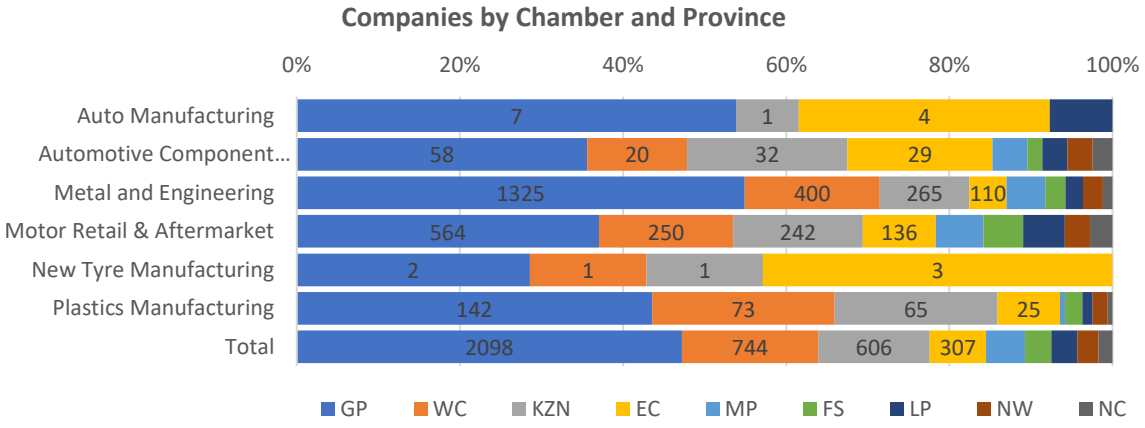


Figure 5: Enterprises by Chamber and Province

1.6 LABOUR MARKET PROFILE

1.6.1 Employment

The official unemployment rate in South Africa was32,9% in quarter 1 of 2023 which is slightly improved year on year since 2022. In the new quarter, 258 000 additional people were in jobs, bringing the employed population to 16,2 million (QLFS q1, 2023). The formal sector added 209 000 jobs, agriculture added 27 000 jobs and private households reduced by 85 000 jobs. The informal sector contributed 107 000 jobs.

In terms of sectoral contribution to employment, the finance sector contributed the most followed by community and social services and agriculture. The manufacturing sector shed 2000 jobs.

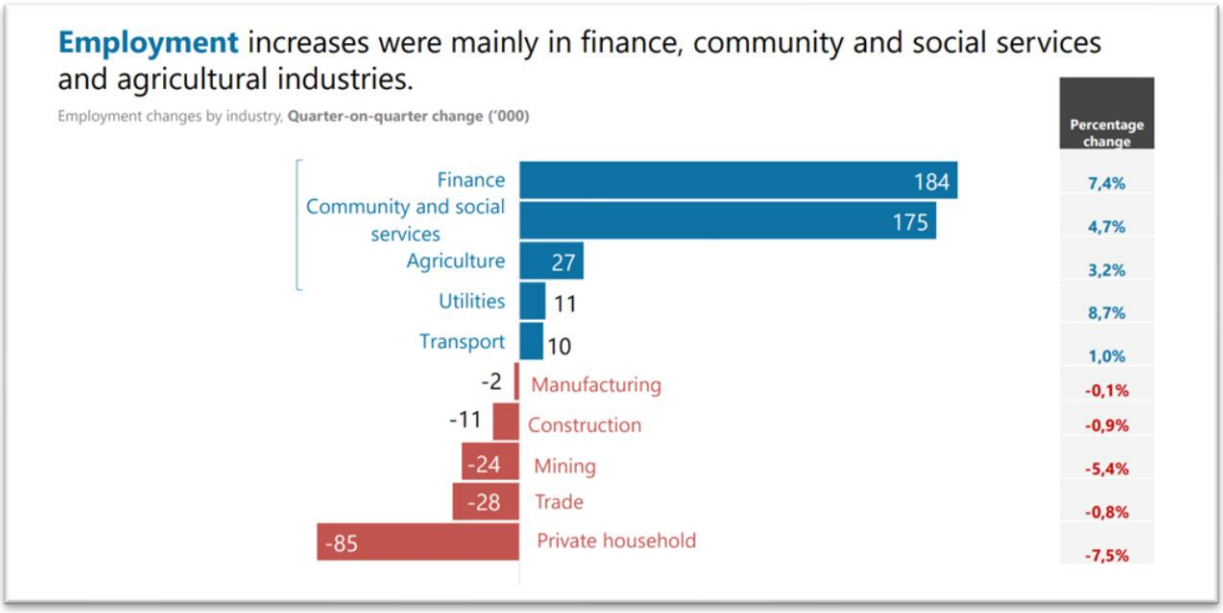


Figure 6: Employment gains Q1 2023 (Stats SA)

In terms of unemployment by educational level, there is a lower unemployment rate among graduates at 10,6% which is reduced from 11,8% as reported in the 2022 SSP. Unemployment for those with other tertiary education has remained constant at 23.5%.

Unemployment in terms of race demonstrated that the Black African population still has an unemployment rate which is higher than the national average at 37,2%. Among White people unemployment is 7,5%, among Indian/Asians it is 14,3% and among Coloureds it is 22.4%.

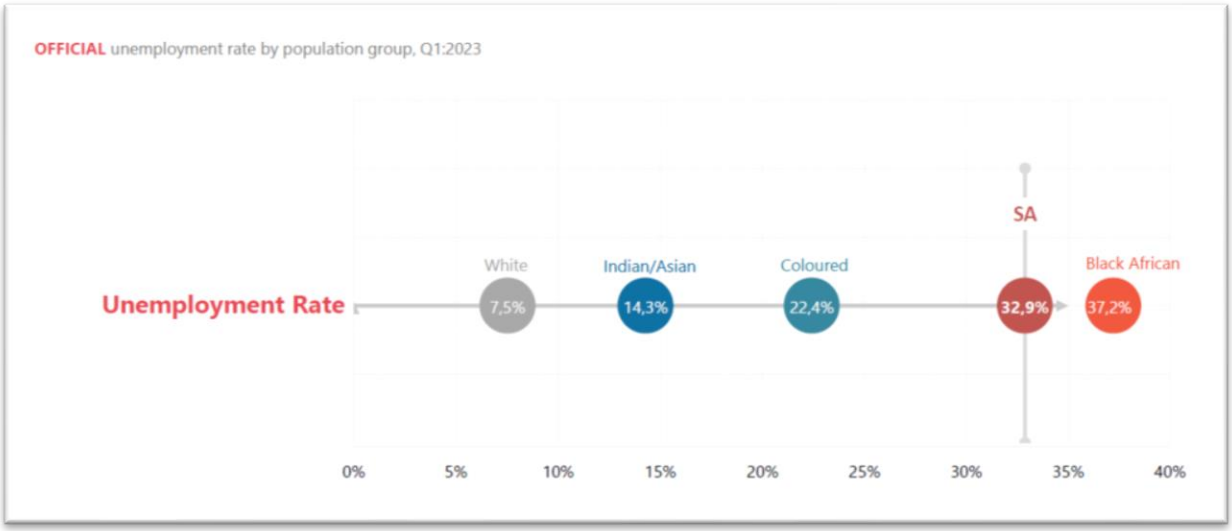


***Figure 7**: Unemployment rate by race*

Employment in the mer Sector

Much like employment in the manufacturing sector as a whole, employment growth has stagnated in the mer sectors with the metals sector demonstrating the most significant decrease in employment growth since 2011. Overall, the growth in employment as at quarter 4 of 2021, is less than 0% tending to exacerbate the deindustrialisation trajectory which needs to be addressed with expedience. The figure below demonstrates employment trends in the mer sector using QES data produced by Stats SA in quarter 4 of 2022.

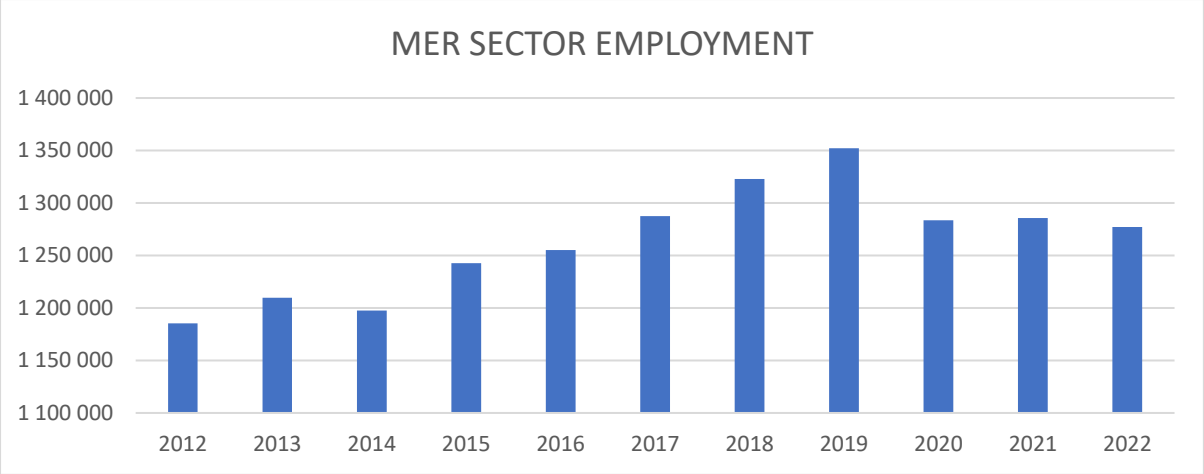


Figure 8: MER Sector Employment Rate (Stats SA, QES, 2022)

Reasons behind the declining labour market in the manufacturing sector

Overall, the decline of the manufacturing sector emanates from the 1990s when its share of GDP has consistently decreased year-on-year due to increased imports, deceased exports and increased capital intensity, policies to boost manufacturing have failed (Black et al., 2018)[8]. Before the dawn of democracy and even now, almost 30 years later – large scale structural unemployment prevails. It appears that in developing nations industrialisation peaks sooner and at much subdued levels than those experienced in developed countries before entering into an era of deindustrialisation. Compounded by failing economic and industrial policies, the manufacturing sector's relative success has rested on capital-intensive production rather than labour intensive production. Therefore, intensified efforts are required to support employment intensive growth which includes training, a reliable energy supply and economic stimuli. On the back of the devastation caused by the COVID pandemic, the ERRP and governments reimagined industrial policy should assist in setting the country on a growth trajectory, however the scale of damage in terms of company closures and job losses is not yet fully understood.

In terms of liquidations, both voluntary and compulsory, 235 companies have closed down in the manufacturing sector: 82 in 2019, 102 in 2020 and 75 in 2021. Furthermore, evidence from Stats SA suggests that the job gains in country are on the back of temporary, fixed term and casual work arrangements. This may be due to the uncertainty with respect to economic growth in the country, in a nutshell, employers are tending to be cautious in terms of investments in their businesses, with many opting for capital investment rather than labour especially in the current context of rising fuel, food and energy costs as well as the unreliability of energy supply.

It seems that the outlook in terms of company closures is somewhat positive in the first quarter of 2022 – with a 12.7% reduction in liquidations compared to a year ago[9]. The labour market however remains precarious and as reported in previous SSP reports, companies are trying their best to retain their current workforce with little room for new entrants and expansionary growth. This means that the current work force will have to reskill and upskill in order to retain their jobs as companies navigate new technologies and other drivers which determines their competitive edge and future success. Boosting the economy will be required to make available opportunities for SMMEs, entrepreneurs and alternative business entities such as cooperatives.

Labour Market Profile of the MER Sector

In total, the WSP data yielded 4705 enterprises in the merSETA scope of coverage. These companies employ well over 450 thousand employees. In the 2022/23 update the SSP reported on 471 512 employees which 2% more employees than the current update for 2023/24 which represents 463 720 employees. For the purposes of the labour market analysis, employees who were stated as having left the company due to retirement, death

[8] https://www.econ3x3.org/article/why-has-manufacturing-employment-declined-so-rapidly
[9] https://businesstech.co.za/news/business/589354/some-good-news-for-businesses-in-south-africa/

or resignation have been excluded from the analysis, so too has the "unknown category been removed. The employees herein are permanent workers (86%) and contract workers (14%).

Table 4: Number of Employees by Company Size and Chamber

Chamber	Large (>150)		Medium (50 - 150)		Small 1 - 49)		All Companies	
	No.	% (row)	No.	% (row)	No.	% (row)	No.	% (column)
Auto	28533	99%	255	1%		0%	28533	6%
ACM	18466	75%	4285	17%	1867	8%	18466	5%
Metal	174917	66%	52541	20%	36167	14%	174917	53%
Motor Retail	81311	61%	26663	20%	24358	18%	81311	27%
New Tyre	5215	99%		0%	35	1%	5215	1%
Plastics	28783	66%	11060	25%	4028	9%	28783	9%
Grand Total	**337225**	**68%**	**94804**	**19%**	**66455**	**13%**	**337225**	100%

The number of employees in the mer seta data has reduced by almost 100 000 people since 2020. This may indicate that the sector is still struggling to maintain and grow its workforce under the current economic climeate..

Previously large companies accounted for well over 70% of employees however this year a higher proportion of employees are employed in medium and small companies. The metal, motor retail and plastics sectors have a higher proportion of workers employed by medium and small enterprises. It is these sectors who would also tend to have representation in the informal sector in terms of business activities.

In terms of provincial spread of employees, more than 50% of employees are based in Gauteng (54%), 16% in KZN, 12% in WC and 8% in the EC.

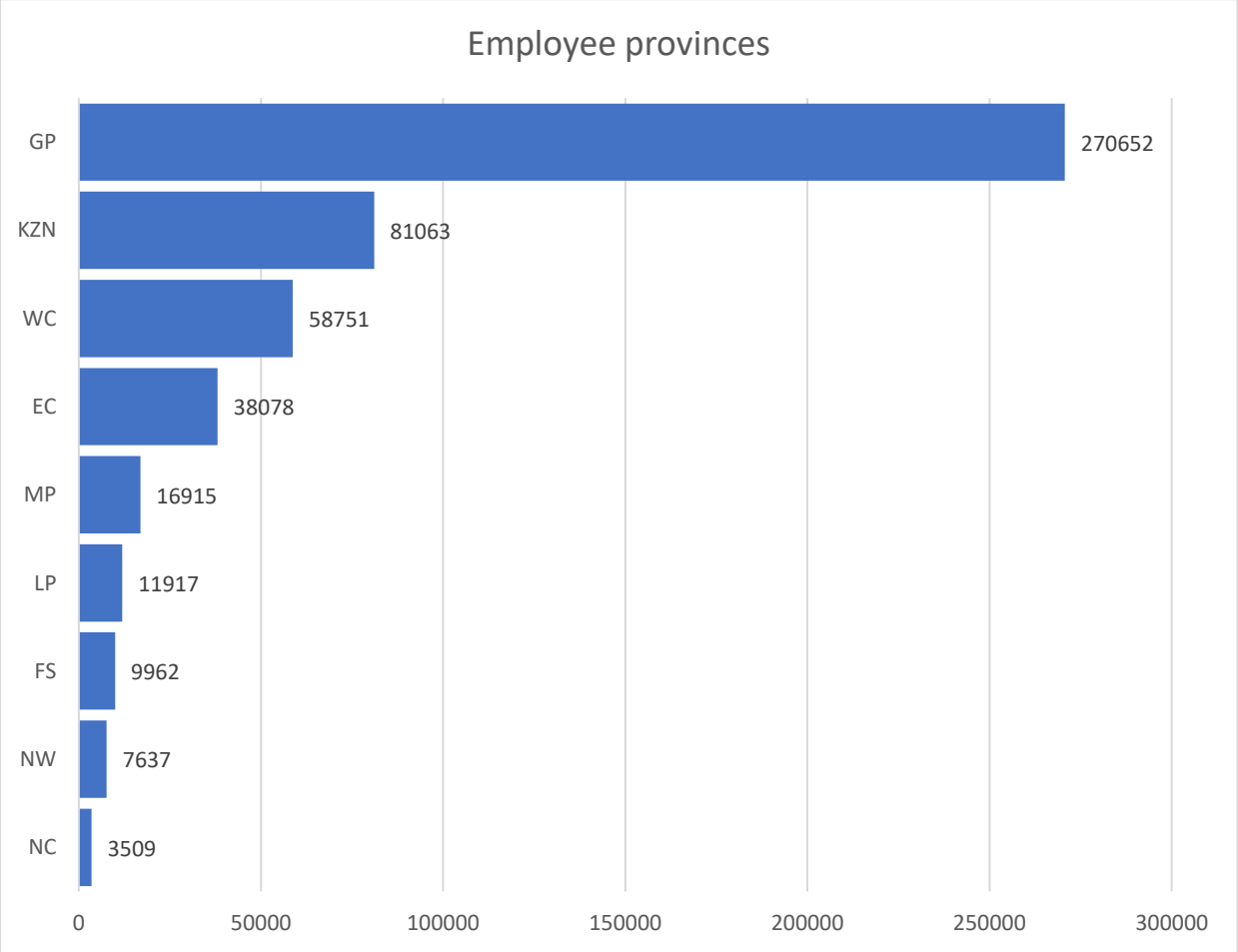


Figure 9: Provincial spread of employees

Table 5: Employees by Occupation Category

	Occupation Category	Employees	%
1	MANAGERS	45593	9%
2	PROFESSIONALS	27411	5%
3	TECHNICIANS AND ASSOCIATE PROFESSIONALS	55483	11%
4	CLERICAL SUPPORT WORKERS	50417	10%
5	SERVICE AND SALES WORKERS	26268	5%
6	SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	93632	19%
7	PLANT AND MACHINE OPERATORS AND ASSEMBLERS	107172	21%
8	ELEMENTARY OCCUPATIONS	92508	19%
Total		**498484**	**100%**

In terms of the occupational profile of employees in the sector, the majority of employees are either machine operators, artisans/skilled trades workers or elementary workers. As per the table below, we note that across the chambers, the proportion of elementary workers are relatively higher in the metals and plastics sectors. New tyre has a high proportion of operators while the ACM and Auto sectors proportionally higher artisans and operators.

Table 6: Employment level by Chamber

Occupation Category	ACM	Auto	Metal	Motor Retail	New Tyre	Plastics	Total
MANAGERS	6%	8%	8%	13%	9%	7%	9%
PROFESSIONALS	5%	7%	7%	4%	6%	3%	5%
TECHNICIANS AND ASSOCIATE PROFESSIONALS	13%	13%	11%	13%	9%	7%	11%
CLERICAL SUPPORT WORKERS	9%	9%	10%	12%	6%	8%	10%
SERVICE AND SALES WORKERS	3%	4%	3%	11%	3%	3%	5%
SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	24%	16%	21%	17%	9%	10%	19%
PLANT AND MACHINE OPERATORS AND ASSEMBLERS	25%	41%	21%	14%	41%	32%	21%
ELEMENTARY OCCUPATIONS	15%	2%	20%	16%	17%	29%	19%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

In terms of the gender and race dynamics, the sector remains much the same. In terms of gender the composition of workers in the sector is skewed towards men. Occupations with high proportions of female workers is clerical workers, professionals and technicians as seen below.

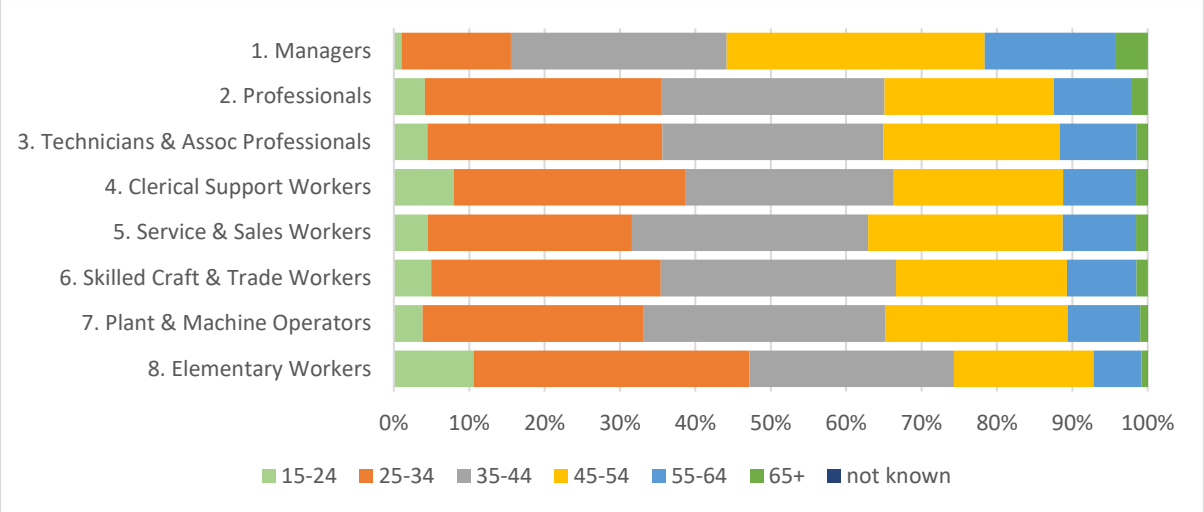


Figure 10: Gender Breakdown by Occupational Level

In terms of the racial profile of the sector, the composition is much the same as previously reported. In the merSETA data, a total of 62% of merSETA employees are Black African, 19% are white, 13% coloured and 6% Indian/Asian, other/unknown account for 0.4%.

Occupations by race shows that Black and Coloured race groups are prevalent in the skilled trades, operator, and elementary positions. Indian and White groups have higher proportion of representation at managerial and professional level.

In terms of the age dynamics of the sector, 36% of workers are less than 35 years. The majority of workers are older than 35. In terms of future replacement demand – the sector will retire around 56 000 people in the next 15 years based on age groups 55 to 65+ as seen in the table below.

Table 7: Age Groups

Age group	Count	%
15-24	27729	6%
25-34	148942	30%
35-44	148253	30%
45-54	117171	24%
55-64	48686	10%
65+	7531	2%
not known	172	0%
Grand Total	**498484**	**100%**

Occupations by age shows that the youth are concentrated in operator and elementary occupational groups. Those aged 35 to 54 years are prevalent across all occupational groups. For ages 55 and above, there is a concentration of these workers at managerial and professional level. This age group is also represented across all other occupational categories at around 10%. These workers will retire in the next 10 years, their experience and expertise should be leveraged to ensure successful succession in the near future.

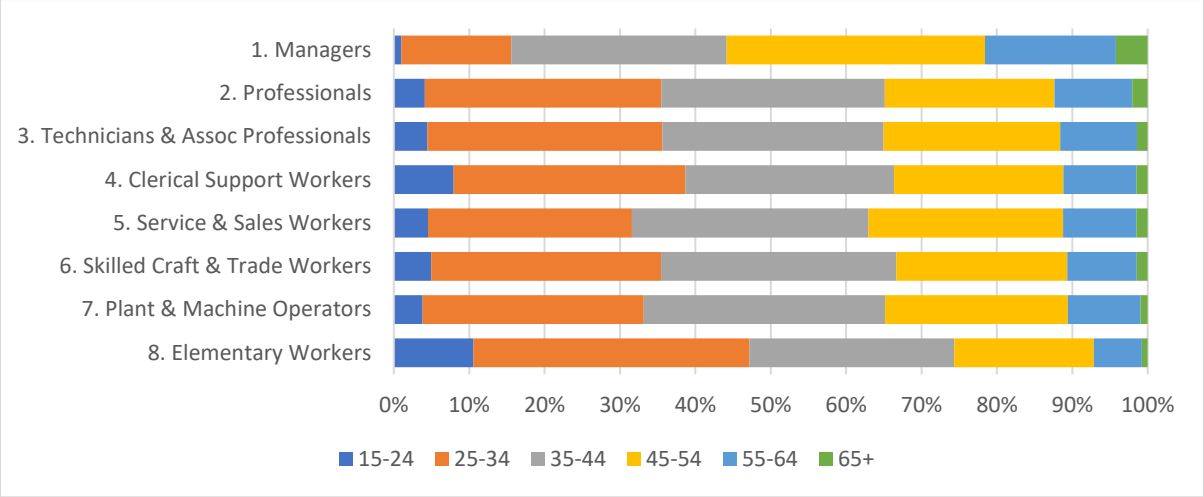


Figure 11: Age and Occupational Level.

Overall, 4% of employees are disabled comprising 17787 individuals The majority are unspecified disabilities (77%) followed by hearing, physical, and sight as seen in the figure below.

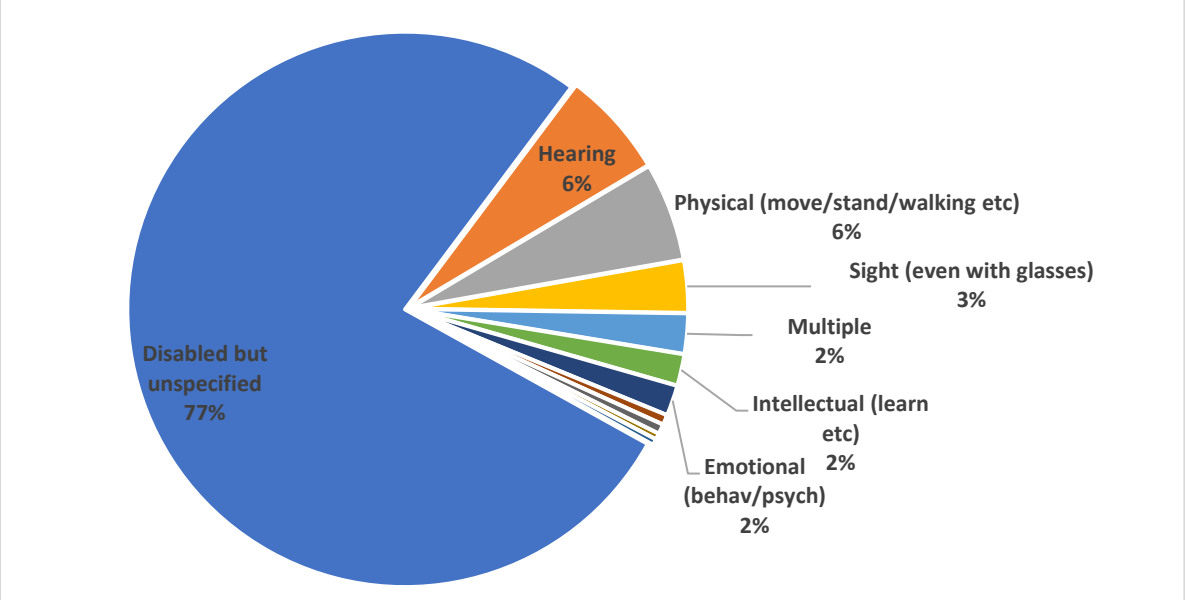


Figure 12: Employees with Disabilities

In terms of the occupations of employees with disabilities, the majority are technicians (49%) and clerical workers (13%), machine operators (11%) and elementary workers (10%).

Table 8: Occupational Level of Employees with Disabilities

Occupation Category	No.	%
1. Managers	713	4%
2. Professionals	751	4%
3. Technicians & Assoc Professionals	8763	49%
4. Clerical Support Workers	2280	13%
5. Service & Sales Workers	493	3%
6. Skilled Craft & Trade Workers	1135	6%
7. Plant & Machine Operators	1915	11%
8. Elementary Workers	1737	10%
Grand Total	**17787**	**100%**

1.7 CONCLUSION

Global economic trends have proved to heighten the negative effects in the domestic market particularly in the metal sector. Efforts to reindustrialise will have to increase. In line with the NDP, NSDP and most government strategies, it is key to concentrate on localisation, to be considerate of the social economy and policies to improve the prospects of medium, small and microbusinesses. Plans and policies that were already on the table will have to be expedited, for example the Automotive Master Plan, support in terms of incubation hubs and bringing smaller components manufacturers up to par with international standards is key. Furthermore, workers who have been marginalised due to the negative effects of the pandemic will require support to re-enter the labour market through support mechanisms to access available opportunities, particularly in terms of self- employment.

Metal sector could benefit from policy reform to spur local demand. Global demand is largely affected by economic conditions and commodity prices. The sector must monitor international conditions and ensure that South Africa can benefit from international trade agreements or adopt protective policies to stimulate the local economy across the manufacturing value chain.

Workers should be supported to retain their jobs which despite the precariousness of the economy, short time and reduced salaries are something that will have to be monitored through the labour organisations. Given this situation, skills development support in terms of stipends for learners should be implemented. For those not in formal employment, there is a need to better understand the intricacies of the informal sector, looking at independent trades' workers, the youth and specific requirements of support. Entrepreneurship or self-employment remains a key mechanism to support sustainable livelihoods.

New technologies and changing business practices are key drivers under the current context. It is essential that even workers in large companies should be able to remain viable in the market through lifelong learning and empowering themselves as the world evolves to ever more precarious job roles. A concerning fact is that a significant number of workers in the sector operate at elementary and operator levels who will be particularly impacted due to the negative economic climate, compounded by the displacing effects of automation. Reskilling and upskilling will be key for these workers.

CHAPTER 2: KEY SKILLS CHANGE DRIVERS

2.1 INTRODUCTION

As discussed in the preceding chapter, the economic climate in 2023 is still subdued with a bleak outlook for the foreseeable future due to domestic challenges of loadshedding, lack of service delivery, rising interest rates and inflation. Global value chains have also been impacted by international events such as the COVID-19 pandemic, the war in the Ukraine and overall subdued economic growth. For the most part large companies are in preservation mode in terms of protecting employment and consistency in terms of production, smaller companies are in survival mode. Given the current climate amid precarious national geopolitical tensions, the drivers of change.

The SSP 2022/2023 update introduced global megatrends and their impact on the world of work and most recently the 2023/24 SSP highlighted the global trends towards the 5IR which homes in on the skills needed in a technologically advanced environment, adopting and tracking new technologies and how all these culminates in a changing world of work.

In this iteration of the SSP 2024/2025, it is evident that the South African economy is struggling to compete globally and even at the local level, conditions are not conducive for rapid growth. The conditions presented by this post-COVID-19 era is complex and careful consideration is required to implement skills development initiatives that will make a meaningful impact under strained economic conditions. This chapter will therefore pay homage to the global trends in terms of globalisation, reindustrialisation and localisation as well as refining the outlook in terms of the energy transition which is required to pivot away from high carbon emissions, raise the profile of renewable energy as well as the technologically advanced production processes and products in manufacturing. In all these drivers the way in which we work is also changing so the changing world of work remains as a relevant driver for skills.

The chapter concludes with an overview of the key polices and strategies shaping skills development in mer sector. Prevailing economic and social policies, including the South African Economic Reconstruction and Recovery Plan (ERRP)

and sectoral master plans are discussed as these have implications for skills development. This chapter is informed by desk research as well as primary research undertaken by the merSETA.[10]

2.2 KEY SKILLS DRIVERS IMPACTING DEMAND AND SUPPLY

2.2.1 Global & Geopolitical Trends:

2.2.1.1 Deglobalisation

According to the WEF, deglobalisation is on the rise in response to COVID-19, the war in the Ukraine and climate change. Essentially, the notion of deglobalisation indicates that globalisation may be coming to an end[11] or at least slowing down[12]. In the figure below we see recent trends in trade openness being referred to as "snowbalisation".

Snowbalisation was preceded by an era of "hyper-globalisation", which slowed due to the global economic crisis of 2008 which caused a slowdown of global integration, and this trend seems to be gaining momentum, especially after the COVID-19 pandemic and the disruptions in the global value chains brought on by the war in the Ukraine. The transition to the green economy and environmental sustainability has also had an impact on governments wanting to reduce their carbon footprint and revise global value chains in line with more sustainable and resilient growth models which includes regulations in respect of carbon emissions. This necessitates a more inward focus or a local focus. With geopolitical tensions on the rise, and as advanced economies turn inward, poverty reduction and development could slow in small, low-income countries that have relied on exports[13]. Countries like South Africa should pay close attention to these trends, in particular the trends in China and India which sees them becoming ever more self-reliant. South Africa has however developed policies to support economic growth and while we monitor these international trends, the focus on the domestic manufacturing sector remains a key lever to growth and sustainability. The notion of localisation is a strong imperative in the South African policy framework and the sectors within the merSETA are a key component.

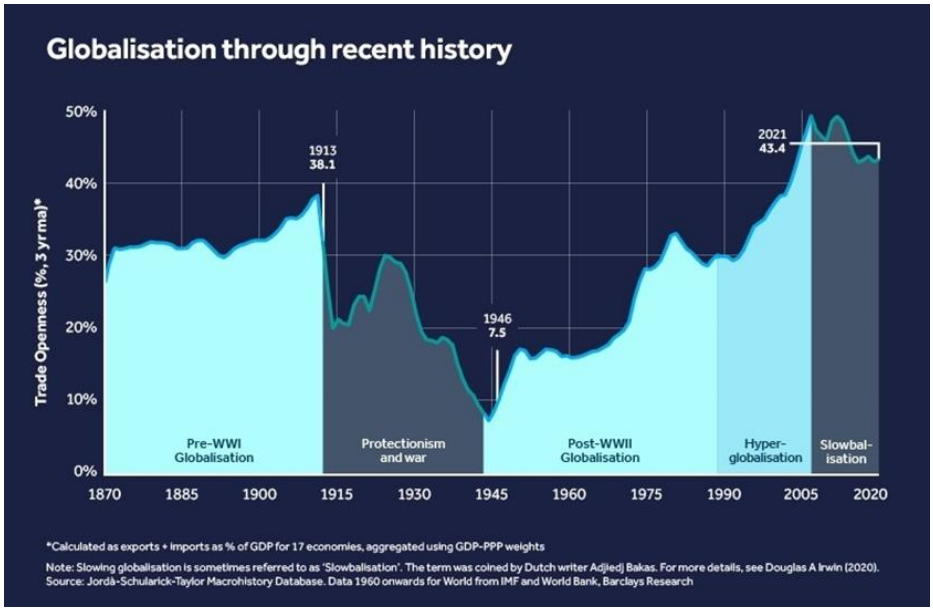


Figure 13: Globalisation trends 1870 - 2020

2.2.1.2 Reindustrialisation and localization

[10] Projects include: The merSETA Atlas of Occupations Project, The Economic Complexity Project, Project to anticipate labour and skills needs for technological changes, Project anticipating 4IR Skills for Mining Manufacturing, Skills for the Green Economy

[11] https://www.weforum.org/agenda/2023/01/deglobalisation-what-you-need-to-know-wef23/

[12] https://www.oecd-ilibrary.org/docserver/b15b74fe-en.pdf?expires=1685081116&id=id&accname=guest&checksum=3DB1A9044D13DC37CC3AC8278BF5DF53

[13] https://www.brookings.edu/bpea-articles/is-the-global-economy-deglobalizing-and-if-so-why-and-what-is-next/

The National Development Plan (NDP), which provides a framework aimed at achieving several socioeconomic targets by 2030 emphasises the importance of growing the labour-intensive elements of the manufacturing sector, driving export growth and diversification, and exploiting comparative advantage (Department of Higher Education and Training [DHET], 2019). South Africa has witnessed a pattern of deinstitutionalization since the 1980s (which was the peak of its industrialisation), since then the contribution of the manufacturing sector to gross value added has been in steady decline from 23% in 1980 to less than 11% currently. This pattern of deindustrialisation suggests that South Africa has not undergone manufacturing-led structural change in the post-apartheid period. The MER sector is key a component of South Africa's manufacturing sector and its relative importance has grown over time.

Industrialisation and localisation, to which the MER Sector is central – is prominent in the government's contemporary policy debate. This emphasis is not unfounded, given that (i) the typical structural transformation path from middle- to high-income status which countries have historically experienced has entailed the development of a vibrant manufacturing sector (Herrendorf, Rogerson & Valentinyi, 2014), and (ii) at least over the last few decades the South African economy has experienced premature de-industrialisation and become a largely services-based economy (Bhorat, Rooney & Steenkamp, 2018). In his inaugural State of the Nation (SONA) address in 2018, President Ramaphosa emphasized industrialisation as a key mechanism to revive economic growth. One year later in his 2019 SONA address, he stressed that South Africa ought to become a "*manufacturing hub*", an emphasis which has persisted in all SONA addresses since: in 2020, through referencing new industrial opportunities in the green economy; in 2021, through expressing support for a sizeable increase in local production as one of the government's COVID-19 Economic Reconstruction and Recovery Plan's (ERRP) priority interventions; and in 2022, by again referencing the ERRP as "*an important pillar… to revitalise our manufacturing base and create globally competitive export industries*."

To achieve a balance between localisation and export growth, economic complexity principles should be considered to not only assist in the country's localisation agenda but also to ensure that there is a robust mix of domestically manufactured goods for both local and export markets. In addition, the metals, plastics and automotive master plans indicate that sustainability and environmental protection should be upheld with the understanding of implementation of new technologies and future focused interventions to keep the sectors at pace with the global economy.

2.2.2 The Just Energy Transition & Environmental Sustainability

The energy transition refers to the transition away from coal towards cleaner sources of energy. The current energy crisis has seriously hampered the economy and brough on sentiments of mistrust and animosity in South Africa. Not only has loadshedding and unreliable loadshedding schedules had serious economic impact on the industrial sector (and other sectors), but also on the personal livelihoods of all South Africans. Increasing tariffs and never ending loadshedding combined with lackluster efforts to improve infrastructure bodes ominous outcomes for the country.

South Africa must navigate towards new energies as well as keep pace with new and alternative energy developments in the manufacturing space. This means that in the mer sector we need to understand the skills needed to transition to renewable energy and the skills that will be required for the circular economy, recycling, new energy vehicles and components.

2.2.2.1 Renewable energies

It is imperative to understand the role of the mer sector in the new energy mix in order to plan for skills requirements and keep the sector relevant and competitive at a local and international level.

There are 3 main renewable energy sources to create electricity, these are wind-power, solar power and hydropower. These energy sources see a cross-section in industrial classification as they involve the mer sector, the energy & water sector as well as the chemical sector. It will be important to explore partnerships within these

industries to ensure that the mer sector can meaningfully participate in the renewable energy space and that the merSETA is able to ensure relevant skills applications are supplied to support these, particularly from a manufacturing, maintenance, and repair perspective.

In the long-run, the fact that South Africa has world-class solar and wind potential means that the shift towards increased solar photovoltaic and wind power has the potential to reduce the rate of electricity price increases and, over time, restore international competitiveness for South Africa's energy-intensive economy.

2.2.2.2 The circular economy

It is important to revisit the circular economy when considering the change drivers for the mer sectors as it has been highlighted in previous iterations of the SSP and in light of the zero-carbon mission – it bodes well to ensure both industrial and environmental sustainability. Industry cannot ignore it as more regulations have come in to play on a local and global scale, it is also of utmost importance to preserve humanity and a healthy planet. An example of this is the New Extended Producer Responsibility Act (EPR), which stipulates that companies are required to take responsibility for the packaging waste of their products following the sale thereof.

Although a relatively new concept, the circular economy offers significant opportunities to deliver on more inclusive economic growth, which includes job opportunities and positive environmental practices that are directly required for sustainability in the country. This occurs by stripping out all unnecessary waste materials, reducing the consumption of energy and raw materials and allowing these materials, energy and resources to be fed back into the cycle (M&G, 2021)[14].

2.2.2.3 New Energy Vehicles (NEVs)

Fuel cell development will become increasingly important for the mer sectors and energy savvy consumers. New solar powered products and efficient fuel cells are a key input into the future of all citizens – the transport industry will move to cleaner engines and autonomous vehicles; this will require infrastructure as well as support for localised production of parts and products to support this transition to clean energy.

On the transition to zero emissions by 2050, decarbonising road transport will require key effort as South Africa has one of the highest road transport greenhouse gas emissions, with road transport itself contributing over 91% of emissions from road, air, rail and sea transport (NAAMSA, 2023). The auto industry is planning to invest 515 billion USD globally to facilitate the transition to NEVs including hybrid, battery and fuel cell electric vehicles.

According to NAAMSA (2023), OEMs around the globe are ramping up NEV launch plans in compliance with strict regulations. The auto industry in South Africa is also assessing the requirements of entering the NEV market in terms of investments required, infrastructure and development as well as key opportunities to manufacture components for export as well as feeding local supply chains.

2.2.3 Adopting New Technologies

As highlighted in the previous iteration of the SSP – the companies in the mer sector are mainly integrating cloud computing, big data, and artificial intelligence; encryption and cyber security; sensor technology and the internet of things; as well as augmented and virtual reality technology into their business operations. It is of concern to note that most of companies[15] are neither integrating nor paying attention to the frontier technologies. In terms of the merSETA research when companies were asked about their level of engagement with frontier technologies, many cited that they are following them from a distance, and very few indicate that they are developing and researching their own solutions.

[14] https://mg.co.za/special-reports/2021-09-03-circular-economy-thinking-can-transform-south-africas-waste-into-treasure/#:~:text=It%20aims%20to%20divert%2090,economic%20opportunities%20for%20South%20Africans.

[15] These companies are those who participated in primary merSETA research in partnership with TIPS, Anticipating skills and labour for the adoption of new technologies in the mer sector.

2.2.4 Developing a labour market to take up opportunities.

The pandemic has accelerated the future of work and along with it, it has exacerbated inequalities. The most vulnerable in the labour market may not be able to meaningfully participate unless interventions in terms of industrial policy, education and skills development are ramped up. The mer sector's labour market is characterized by a majority of entry level workers (elementary and machine operators) and also artisans. Technological developments have tended to put highly routinised work at risk of redundancy and high churn in terms of labour (DPRU, 2018). The majority of youth in the mer sector fall into the elementary worker category. While it could be interpreted as a negative thing, the rise of automation and digitalization has also opened the opportunity for up-skilling of workers to take on meaningful work and make contributions to the economy. It has been noted that there are opportunities in gate way jobs for sectors that are growing in South Africa – but these tend to be sectors related to services, tourism, finance and agriculture (also called industries without smokestacks). These however also emphasise the need to develop foundational soft skills such as listening, communication, empathy and decision making. A key consideration here is to make pathways more visible and less expensive in terms of training.

It is important to note that prior to the pandemic, there was optimism (more so in developed region) that the skills required by the 4IR could present opportunities for more opportunities to be taken up due to implementation of technologies – particularly for the pipeline of youth into the labour market. This has however been replaced by a more ominous reality in the midst of the pandemic, as the pace of displacement is increasing and efforts for a just transition to the 4 and 5IR must be implemented with haste or South Africa may experience even higher levels of unemployment and poverty (DPRU, 2021).

From the merSETA research it is evident that there is a dichotomy in the mer labour market – a clear division between a majority of low skilled, entry level workers and higher skilled workers. The majority of displacement will occur in the lower skilled segments.

With the rapid advancement and adoption of new technologies comes a clear and significant demand for upskilling. However, proficiency in new technologies is only one part of the skills equation, as disruptions like automation, machine learning, and artificial intelligence (AI) have placed a new premium on the 'enterprise', 'human', and 'soft' skills that machines cannot master. Skills such as creativity, originality and initiative, critical thinking, persuasion, and negotiation are only likely to rise in value, as well as capabilities like an attention to detail, resilience, flexibility, and complex problem-solving.

Table 9: Skills Drivers and Skills Implications

Skills Drivers	Sub-themes	Implications for Skills Development
Global Economic and Geopolitical Trends	Deglobalisation Reindustrialisation and localisation	Build skills pipelines to international levels of sophistication for local and export sales. Build economic complexity to expand manufacturing and produce frontier products – match skills to required developments. Invest in R&D to boost innovation.
The Just Energy Transition & Environmental Sustainability	Renewable Energy The Circular Economy NEVs	Cross sectoral partnerships to build required skills pipeline for renewable energy. R&D to unpack potential to exploit opportunities at various parts of products production and life cycle. Ensure updated curricula and competence in line with industry requirements to meaningfully participate.
Adopting New Technologies	Keeping pace with technological advancements and innovations to remain relevant.	Track technological advances and make ready skills opportunities for workers in line with these developments.

Skills Drivers	Sub-themes	Implications for Skills Development
		Assist small and medium businesses in terms of upskilling and reskilling in line with national development and technological advances. Track occupations at risk of displacement, change and additional tasks and reskill or upskill – with more urgency placed on skills being replaced by tech in the short term.
Developing a labour market to take up opportunities.	Transformation Upskilling, reskilling	Focus skills interventions, projects and programmes on the youth, women and persons with disabilities. Put in place clear mechanisms to build and navigate careers in line with new developments in terms of new and changing occupations, new markets and products.

2.3 POLICY FRAMEWORKS AFFECTING DEMAND AND SUPPLY

The concepts embedded in skills development and PSET policies has various meaning, and the correct interpretation is key to successful policy imperatives. This section draws attention to the national strategy and planning documents that frame merSETA' s mandate for skills development. The legislative and policy frameworks speak to merSETA' s constitutional mandate as a public institution governed by the Public Finance Management Act (PFMA) to develop skills programmes in accordance with the Skills Development Act (1998), the Skills Development Levies Act (1999) and the National Qualifications Framework Act (2008).

2.3.1 Key Skills Development Policies for PSET

The table below briefly describes key national policies for PSET:

Table 10: PSET Policies

KEY NATIONAL POLICIES				
National Development Plan (NDP)				
The NDP is the overarching framework guiding economic development in South Africa. The NDP prioritises improving the quality of education, skills development, and innovation.				
Key Levers				
• Adaptation to changes in technology, industry, population dynamics and global trends. • The promotion of lifelong learning and targeted support to students who are academically less prepared. • Responsiveness to the skills needs of all sectors of society especially the need for financial professionals; and • The development of partnerships in skills provision.				
NDP Post-COVID-19 (re-calibration of efforts for success)				
Restore financial and fiscal sustainability,	Build the capital assets base and the people assets base.	Ensuring digital readiness.	Create dynamism in industries to create jobs.	Focus on public employment and building a capable state.
KEY SKILLS DEVELOPMENT POLICIES				
National Skills Development Plan (NSDP)		**National Plan on Post School Education (NPPSET)**		
The purpose of the NSDP is to drive skills development primarily through the public education system, particularly through TVET (Technical and Vocational Education and Training) and higher education institutions (the private sector also plays a critically important role in expanding access and variety in the system and is not excluded).		The NPPSET operationalises the vision and principles of the NSDP and provides a blueprint for growing an effective and integrated PSET system.		

These recommendations from these plans are congruent with the Economic Reconstruction and Recovery Plan (ERRP) which aims to restore and grow the South African economy in a manner that promotes sustainability, resilience, and inclusiveness. The sectoral master plans further support national planning and the ERRP and are highlighted in the table below:

Table 5: Key Policies

THE KEY POLICY ENVIRONMENT POST-COVID-19	
Paying attention to the national policy landscape and the drivers impacting on sectors, the impact on skills becomes evident – this can in turn drive the types of interventions the merSETA should invest in – particularly leveraging the partnerships model and our funding capability.	
Economic Reconstruction & Recovery Plan (ERRP)	
Aim:	**Themes:**
To build the South African Economy to reach its full potential by being sustainable resilient and inclusive.	• Industrialisation and localisation. • Infrastructure development. • Energy & food security. • Green industries. • Digital economy & network industries; and • Public Employment
Implications for skills development in the mer sector	
• Skills for the ERRP are intrinsically linked to the mer sector and have been prioritised for discretionary funding. • Access to learning opportunities should be prioritised for the youth, women and marginalised groups to ensure inclusivity. • SETA partnerships have been promoted as the best vehicle through which the SETA achieves its mandate. As such, enablers to identify partners for strategic projects should be prioritized. • The ERRP is aligned to the NDP and should be continually tracked and monitored to set the economy on a trajectory of growth. • It has a clear skills strategy which should be embedded in SETA operations aligned to specific industrial plans and master plans	
Sectoral Master Plans	
Broad Objectives:	
Aligned to the re-imagined industrial strategy which incorporates the sectoral master plans coupled with the Economic Reconstruction and Recovery Plan.	
• Enabling the state to put the country on to a trajectory of transformation and growth.	
• To re-industrialise South Africa and promote the localization agenda.	
• Highlights the manufacturing sector as a high labour absorbing sector as it affords many the opportunity to access a decent livelihood which is imperative for the well-being of workers, their families and communities.	
Sector	**Vision**
Steel Master Plan	Highlights the need for long-term thinking as the industry has been in decline the default status is one of meeting immediate needs for survival.
Plastics Master Plan	To be a proactively adapted industry that can fully supply the growing, and forever changing needs of the local and export markets; Build an industry that can create jobs, advance transformation and economic inclusion; and sustainably industrialises in an environmentally responsible manner.
Automotive Master Plan 2035	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

Other policies and plans also make an impact on skills needs for a developing economy, these are depicted below:

Table 6: Additional National Policies

<table>
<tr><td colspan="2">National Development Plan (NDP) (Meeting the NDPs Labour Market objectives - National Planning Commission update 2021)
This document reviews progress towards the objectives of the NDP. It undertakes an economic review with a focus on the labour market.</td><td colspan="2">National Youth Policy 2020-2030
The National Youth Policy t endeavours to put in place mechanisms by which the youth are given meaningful opportunities to reach their full potential, both as individuals and as active participants in society.</td></tr>
<tr><td rowspan="2">The Green Paper on Electromobility
The purpose of the green paper is to lay a policy foundation to ensure SA can position itself to produce vehicles and vehicle components in the EV space.</td><td colspan="3">National Strategic Plan on Gender Based Violence & Femicide
Women’s lack of freedom, exploitation and barriers to gender equality are rooted in economic, political, and social systems.</td></tr>
<tr><td>National Environmental Management: Waste Act, 2008

The amended regulations ensure producers to become more responsible in how they manage electronic waste</td><td>National Waste Management Strategy (NWMS 2020)
The waste management strategy puts in place mechanisms to achieve the objectives of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008)</td><td rowspan="3">National Qualifications Framework Act, 2008 (Act No.67 of 2006) Occupational Qualifications Sub-Framework Policy
This policy has been updated in 2021. Its key objectives are to maintain a learning achievement framework to enhance the quality of education and training</td></tr>
<tr><td colspan="2">The Presidential Youth Employment Initiative: Aims to put in place programmes and strategies to provide opportunities for youth to access meaningful employment opportunities at scale</td></tr>
<tr><td colspan="2">QCTO- Policy on Accreditation of Skills Development Providers
This policy is applicable to service providers who seeks accreditation that offers occupational qualifications and/or part qualifications registered on the OQSF</td></tr>
<tr><td colspan="4">Criteria and Guidelines of Artisan Recognition of Prior Learning (2016)
This policy is to ensure that Artisan Recognition of Prior Learning (ARPL) is recognised as a full artisan trade occupational qualification registered on the NQF (National Qualification Framework) linked listed trades.</td></tr>
</table>

The key skills drivers highlighted in this chapter are closely correlated to the key themes identified in the reimagined industrial strategy as well as other national policies and plans. These should be analysed at a higher level to cluster themes and therefore the drivers for SETA intervention to not only support their sectors but also align with the overall trajectory of national planning in terms of growth and development.

There should be a focus on:

- infrastructure rollout and development.
- increasing local production.
- creating jobs.

- supporting livelihoods; and
- expanding energy capacity.

The skills strategy linked to the ERRP further aims to provide citizens with skills for employment access and retention. It aims to address the challenges faced by the various sectors, and heightens attention on the youth, women, and vulnerable groups. It supports transformation through fair and inclusive access to training opportunities. Furthermore, the Department of Science and Innovation has also highlighted the importance of the circular economy and the digital economy.

POLICY MATRIX AND THE MERSETA RESPONSE:

The key skills drivers and policies outlined present key themes that are relevant for skills development and planning. The table below presents these and their implications for skills development.

Table 7: Sectoral Drivers and National Imperatives implications for skills development.

Sectoral Drivers and Trends	Key themes emanating from National Policies, Strategies and Plans	Implications for skills development
1. Reindustrialisation and localisation	Strong support to spur economic growth and develop potential in both local and international markets (global value chains)	Re-industrialisation and localisation hold great potential if successfully achieved. Despite the trend towards deglobalisation, the South Africa must build economic complexity and put forward a compelling business case for exports. Key efforts should be placed in identifying export markets and products in line with current policy and legislation to put the country on a growth path. Currently South Africa is faced with high unemployment rates and skills shortages in respect of effective and efficient production processes. Opportunities for development In line with high labour intensity should be sought. Skills intensity for these should also be unpacked to develop mid to high level skills for most workers in the medium to long term. Government ambitions for economic growth should be supported through key partnerships for skills development as a support for larger infrastructure, business development and community initiatives.
2. New technologies and advanced methods brough on by the 4IR and 5IR.	Support for accessing markets, structural reform and using technologies to improve the business sector as well as efficiencies in the public sector for demand led interventions	South Africa's manufacturing industry is still at a foundational stage when it comes to the adoption of smart technologies that accelerate 4IR (merSETA Supply and Demand Study, 2018). Assist in job preservation and growth through realignment of skills where necessary. Develop a skills strategy in line with future demands. Lifelong learning and personal development should be inherent to the skills planning process to develop skills to progress within a precarious labour market and leverage off the skills that will be beneficial in the 5IR.
3. Energy efficiency, sustainability and a focus on green principles.	Emphasis placed on developing both blue and green economies to sustain not only livelihoods but also the environment.	The circular economy can be seen as an economic model that minimises resource input and waste generation. There should a focus on facilitating environmentally sustainable "green" practices.

Sectoral Drivers and Trends	Key themes emanating from National Policies, Strategies and Plans	Implications for skills development
	The South African government supports the green economy through the national Cleaner Production Centre of South Africa and supporting policies and the blue economy through Operation Phakisa. Key efforts to alleviate the current energy crisis through renewable energies such as solar, wind and hydrogen is high on the national agenda.	The focus on marine transport manufacturing has the opportunity to deepen component manufacturing and rebuild domestic capabilities facilitating re-industrialisation and localisation. Small businesses can be supported for recycling and reducing harm by products that have reached their "end life". Build greater awareness and advocacy for green skills and green technologies. Up-skilling interventions have been supported by the merSETA through the adoption of a cross-cutting theme of sustainability. To ensure the relevant skills are developed for the circular economy, curriculum design and development of new qualifications and occupations should take into account. Innovation, research and development is key to better understanding how value chains are transforming due to opportunities arising in the green and blue economies.
4. Skills required that are updated and adaptable to the needs of industry in the near- and longer-term future.	A skilled and capable workforce able to respond the sectoral demands and grow the economy. Demand led, well researched and technologically enabled response for the needs of industry. The South African Government has already indicated the willingness to expand learning modality especially to those who experience barriers to participation such as geographic location, lack of access to digital infrastructure, time pressures, lack of admission qualifications, lack of finances etc.	Workers find that their skills are made redundant and they either face retrenchment or redeployment in areas where their skills can still be utilised. Future ready curricula must be developed in time to meet the demands of the future. With this in mind there is an emphasis on science, engineering and technology, increasing digital fluency and using technology to solve complex problems. • **New or improved curricula must account for broad areas with respect to** predictive analytics, artificial intelligence, additive printing, the internet of things (5G), nanotechnology, automation and robotics. • **Professions in the future will typically centre on the following types of jobs:** motor manufacturing technicians, wind turbine service technicians, flexible app developers, computer programmers, artificial intelligence and robotics specialists, and cloud computing specialists among others.
5. High demands of structural change may exclude many in the workforce due to limited skill and advanced age	Strong emphasis on inclusivity (poverty, disability and breaking barriers to access), community development, youth development and support for small and informal business.	merSETA is in the process of evaluating its programmes to ensure that its service offering is not only of a high quality but that it also ensures better packets of support to break barriers to entry and succession once enrolled. A partnership model in line with NSDP is required. Civil society partnerships and regional focus areas should be developed where communities can access skills development opportunities through either community education

Sectoral Drivers and Trends	Key themes emanating from National Policies, Strategies and Plans	Implications for skills development
		centres, TVET colleges or higher education institutions.

Overall, the drivers highlighted in this chapter and the key themes emanating from the policy landscape are synergistic. The changes in industry brough about by the context of the economy find expression in the proposals made through policy, which sets the sentiments of the government in terms of its willingness to support growth and prosperity for its citizens.

Skills development relies on strategic interventions in the form of partnerships and sufficient funding to ensure positive outcomes for learners and workers in the labour market. The highlighted drivers and suggested interventions are grounded on policy imperatives across the PSET and industry landscape and this in turn calls for collaboration efforts across sectors and industries. The notion of redundance was examined in the previous SSP and the need for interventions to overcome displacement and redundancy remains a key focus as the majority of workers in the sector who are low-skilled and semi-skilled.

CHAPTER 3: OCCUPATIONAL SHORTAGES AND SKILLS GAPS

3.1 Introduction

The Post School Education and Training (PSET) system is an important institutional mechanism that must be responsive to the needs of society. Furthermore, the South African education system has become the prime vehicle for the delivery of knowledge, skills, and values. Moreover, South Africa continues to spend a large share of its national budget on education, both schooling and post schooling. Equally important, the university, CET and TVET college subsystems are the largest components of the PSET system. SETAs as intermediary bodies play a critical role in skills development for PSET, the SETAs leverage their sectoral knowledge and funding capacity to align to both national and sectoral priorities. The understanding of both supply and demand side skills is key to effectively drive skills sectoral and national growth and development.

This chapter of the SSP unpacks the supply side in terms of sectoral occupational demand, training provision and occupational supply. It highlights challenges and key areas of focus, sectoral priority occupations and interventions which form the basis on which the SETA drives strategic decisions to fulfil its mandate. The methodologies used to the determine these priorities are also described. The key information used to develop this chapter stems from the SETA mandatory grant data and information, the workplace skills plans and sector surveys. Secondary research is also utilised in this chapter with key information stemming from HEI and TVET MIS data and statistical reports.

3.2 Sectoral Occupational Demand and Priority Occupations

3.2.1 Hard to Fill Vacancies

The WSP 2023 data provides information on hard to fill vacancies (HTFVs) based on a template provided by the DHET. Of all the WSPs submitted, 3915 companies filled out the skills requirements section pertaining to HTFVs[16]. Most 3445 (88%) companies indicated that they did not have any vacancies. The table below shows the number of vacancies by occupational group. In total only 470 companies indicated that they had vacancies. In total they reported 3286 vacancies, less than 100

[16] Blanks in the data were removed to yield total who submitted information to the question, “Did you have vacancies in the past financial year?”.

more than in the previous year. Of these vacancies, 1730 vacancies remained unfilled (52%), this may indicate some difficulty in filling vacancies.

The majority of these were for skilled trades' workers, sales workers, and technicians. This shows that there were more opportunities for artisans and sales workers with relatively little demand for clerical workers, operators and elementary workers. There is also higher demand for professionals and technicians & associate professionals than for elementary, operator and clerical workers. A key observation here is that the elementary workers represent a significant portion of the workforce, and they are the least difficult to fill occupations. The vacancies required also require mid-level skills to high level skills.

Table 8: HTFV by Occupational Category

OFO level	HTFV	%
1. MANAGERS	192	11%
2. PROFESSIONALS	182	11%
3. TECHNICIANS AND ASSOCIATE PROFESSIONALS	201	12%
4. CLERICAL SUPPORT WORKERS	56	3%
5. SERVICE AND SALES WORKERS	288	17%
6. SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	721	42%
7. PLANT AND MACHINE OPERATORS AND ASSEMBLERS	69	4%
8. ELEMENTARY OCCUPATIONS	21	1%
Grand Total	**1730**	**100%**

The specific occupations for which the sector's reported vacancies are shown in the table below – only occupations in which there were more than 10 vacancies per occupation have been listed. The

majority of occupations are for artisans and technicians and professionals.

Figure 14: Reasons for HTFVs by Occupational Group

Overall, the reasons for HTFV are a lack of specific skills and experience, lack of the right qualifications was also noted for technicians, skilled trades and operators. A list of reasons for HTFVs by occupation is provided as an annexure to this report.

3.2.2 Skills Gaps in the sector

In terms of the skills gaps, 4440 companies provided information on skills gaps for occupational categories. The top 5 skills gaps for each occupational category are demonstrated in the figure below. Overall, most occupational groups have problem solving, planning & organising, technical and supervisory gaps.

Table 9: Top 5 Skills Gaps

Skills Gap	Manager	Professional	Technicians Assoc Profs	Clerical Workers	Service Sales Workers	Skilled Trades Workers	Machine Operators	Elementary Worker
Problem Solving		5	4	3	4	2	2	5
Planning and organising	5	4	3	2	2	5	5	
Technical (job-specific)			1			1	1	2
Supervisory skills	3	3	2			3		
Occupational Health and Safety						4	3	1
Teamwork				5			4	4
Project Management	2	2	5					
Office Administration				1	5			
Management and Leadership	1	1						
Basic Computer (IT)								3
Customer Service					3			
Advanced Computer, IT and software				4				
Legal, governance and risk	4							
Marketing and Sales					1			

3.3 Extent and Nature of Supply

3.3.1 Education and Training Provision

This section looks at the provision of education and training of skills with the focus specifically on merSETA accredited qualifications. Therefore, it is crucial to examine the extent of occupational supply in the sector and the state of education provisions that may be affecting the supply of skills to the manufacturing sector. Furthermore, skills supply includes a consideration of both the skills of the current labour force and those of the future labour force. Further to this, this section also reviews provision in higher education, TVET colleges and skills programmes.

South Africa has one of the highest rates of public investment in education in the world. At about 7% of gross domestic product (GDP) and 20% of total state expenditure, the government spends more on education than on any other sector (SABC Education, 2020).

Fundamentally, South African workforce continues to battle challenges such as the skills gap, a high youth unemployment rate and economic uncertainty, which present challenges for both organisations and job seekers alike. These trends were demonstrated in chapter 2, showing the dichotomy in the labour force and the uneven spread in terms of educational attainment across the race groups. The

context under which the manufacturing sector currently operates impedes sector growth and labour absorption. Although employers indicate that where there are vacancies, the reasons are due to a lack of specific skills and experience, it should be noted that the number of vacancies remains very few relative to the high numbers of the unemployed. The structural faults in the economy has, proved to shrink the manufacturing sectors labour absorbing capacity and has also resulted in retrenchments in the sector. The ability of the skills development sector to provide skills to support the reindustrialisation and employment creation agenda becomes constrained and will require efforts to provide skills for industrialisation through support of SMME and cooperative development.

3.4 Supply Side Challenges

3.4.1 Schooling Pipeline And CET

Inequality in terms of quality and access is a legacy of the apartheid system in South Africa. The schooling system makes access to PSET challenging for most school leavers in South Africa, particularly amongst vulnerable groups stemming from rural areas, high levels of poverty and lack of exposure to technologies and conveniences that their wealthier counterparts take for granted. The COVID-19 pandemic has interrupted teaching and learning with children losing up to a whole year of education. The dropout rate has also increased with almost 1 million children not attending school (UNICEF, 2021). These factors as well as the subdued socioeconomic context in which learning occurs has implications for the pipeline of learners entering post schooling education. Children will require additional support to complete their schooling. According to the annual skills supply and demand report (2021), South Africa ranks last out of 39 countries on the TIMSS (trends in mathematics and science), although the pass rates in 2020 and 2021 have shown improvement, there is still much to be done to raise the level of basic education in our country.

Thus, the quality of basic education remains a critical constraint on the education and training system and the labour market. The pass rate in mathematics and physical science two key matric subjects that enable learners to apply for Science, Technology, Engineering and Mathematics degrees is low. Between 2018 and 2021, the mathematics pass rate ranged from 53.8 percent to 58.0 percent. The pass rate for physical sciences dropped by 6.5 percentage points from 75.5 percent in 2019 to 69.0 percent in 2021 (Quarterly Labour Force Survey Report, 2021). As a result, the commitment to improving learner performance remains intact with the support from the national supplementary remote learning campaigns. The merSETA has recognised these constraints and have sponsored bridging and support programmes for school leavers and matriculants.

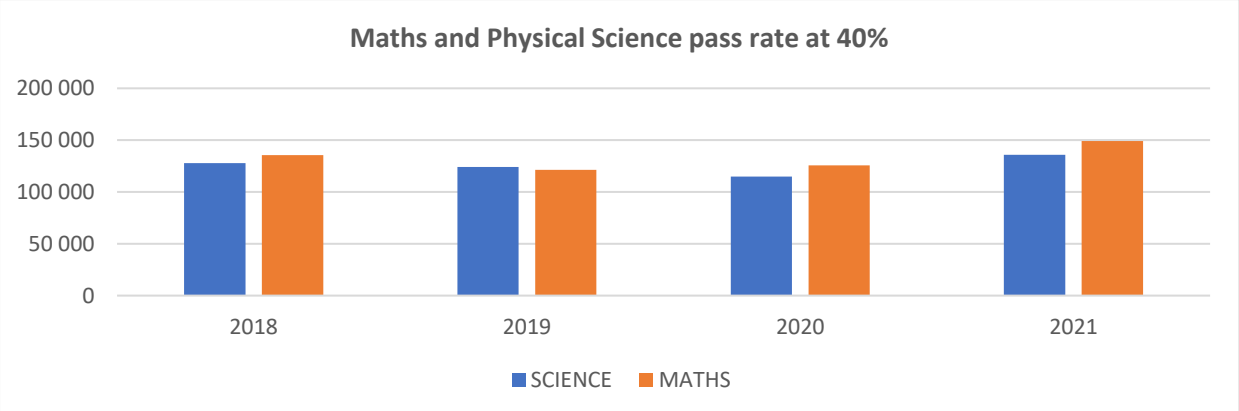


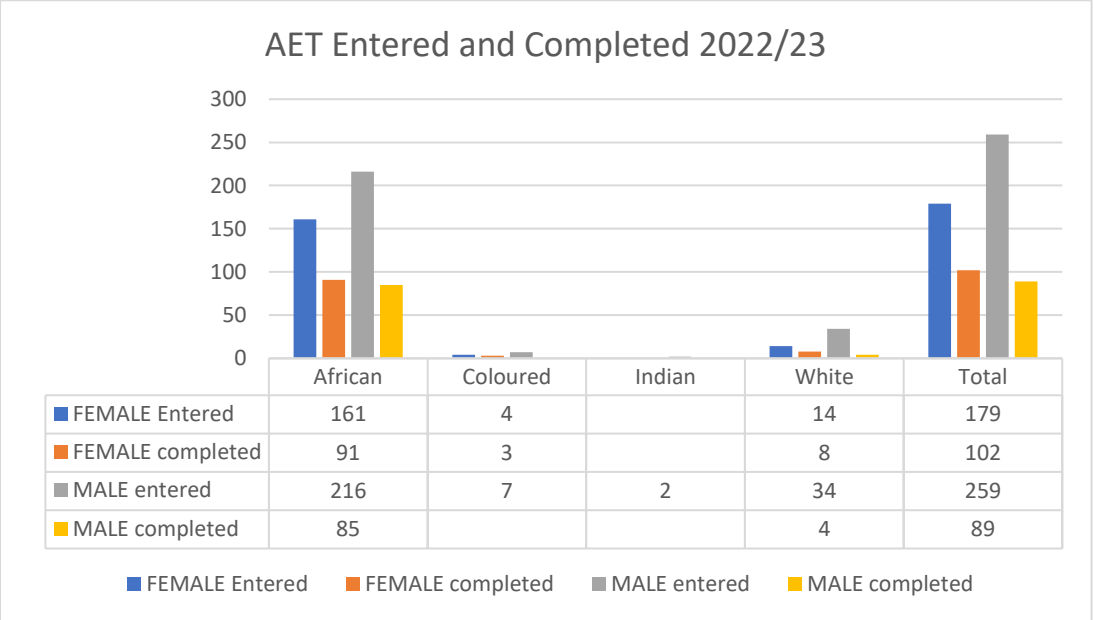
Figure 15: Maths and Physical Science pass rate 2018-2021

The Community Education and Training (CET) College System was established in 2015, equally important the White Paper for Post-School Education and Training called for the establishment of CET colleges as the third tier of institutions in the PSET system. Therefore, it has been six years since the establishment of the CET College System and while progress has been made, a significant amount of work needs to be done to ensure the sector serves its mandate to provide quality education.

Emphatically, the CET is an emerging sector within the PSET system, and the foundation of the sector evolved from the former Adult Basic Education and Training (ABET), which focused predominantly on basic literacy and numeracy for adults. Furthermore, CET sector plays its unique role in the provision of the necessary skills required for economic development and to halve poverty and indignity. In addition, the transitioning of the sector gave birth to nine CET colleges, one per province, with 1 791 learning sites clustered under them (Izwi of CET, 2021).

According to a report by the South African Government, (2022) the reflection of the CET colleges takes place in a worsening socio-economic impact characterized by increasing poverty, unemployment, and inequality. These challenges have been worsened by Covid-19, impacting livelihoods, employment, health, and wellness of communities. Moreover, the CET Colleges target out of school youth and adults who require various forms of skilling as part as part of governments instrument for the provision of mass skills programme as a contribution and a response to ERRP.

In terms of CET and AET support, the merSETA sponsored learners are represented below. The graph shows that the majority of beneficiaries or learners are Black African males and females. These programmes consist of interventions ranging from 4IR interventions such as robotics, to business management and foundational learning for the trades.



	African	Coloured	Indian	White	Total
FEMALE Entered	161	4		14	179
FEMALE completed	91	3		8	102
MALE entered	216	7	2	34	259
MALE completed	85			4	89

Figure 16: merSETA AET Learners, 2022/23

3.4.2 Youth Unemployment

Minister Blade Nzimande (2022) noted that the last two years have been extremely tough for the PSET sector, however, the system has remained resilient, however, the upsurge in the number of people who are not in employment, education, or training (NEET) demonstrates the need to expand access to post-school education and training (PSET) opportunities.

Moreover, NEET requires the PSET institutions to offer a diversity of programmes not only to take account of the needs of the youth who completed schooling, but also for those who did not complete their schooling in an integrated and articulated manner. Evidently, in Q2 2021, 32.4 percent of South African youth were not in employment, education, or training (NEET), an increase from 0.4 percentage points in Q2 2013 (Quarterly Labour Force Survey Report, 2021).

The graphic below demonstrates that the NEET population has outpaced all other enrolment types consistently, this means that of all the youth, there are more youth who are not accessing a learning opportunity nor employed than those who are enrolled in learning opportunities. To assist in terms of NEETS access to opportunities, the merSETA has put in place bursaries for unemployed youth, assistance with tuition fees for the missing middle and wraparound learner support services. The merSETA tracer study in 2021 demonstrated that a significant proportion of youth participating in mer sector interventions are absorbed into employment[17].

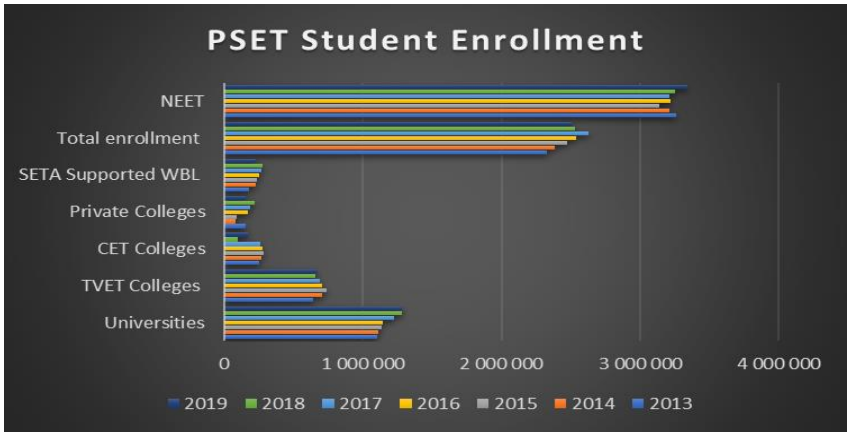


Figure 17: NEET enrolment 2013-2019

3.4.3 Racial and Gender Inequality

In terms of the current workforce in the mer sectors, we note that the majority are Black African, however the population dynamics of the employed do not reflect those of the South African population. Moreover, the population in South Africa is comprised of 51% women, yet in the mer sector women only account for less than 30% of the workforce.

In higher education provision see graphs below), there tends to be a higher number of female graduates, similarly in the profile of mer sector employees, females tend to be more educated as evidenced by the relatively high proportion of female professionals and managers. The field of study indicates that there are more female graduates for all fields of study. In the previous year (2021), there were more men graduating in SET and business fields than women.

[17] merSETA tracer study reports can be accessed on the merSETA website: merseta.org.za.

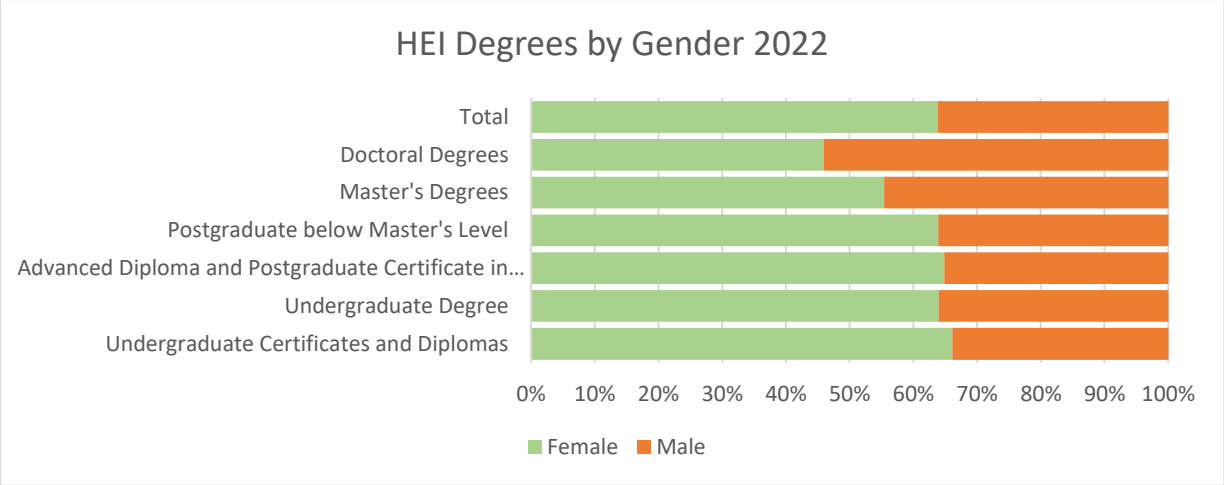


Figure 18: HEI Degrees by Gender (DHET, 2023)

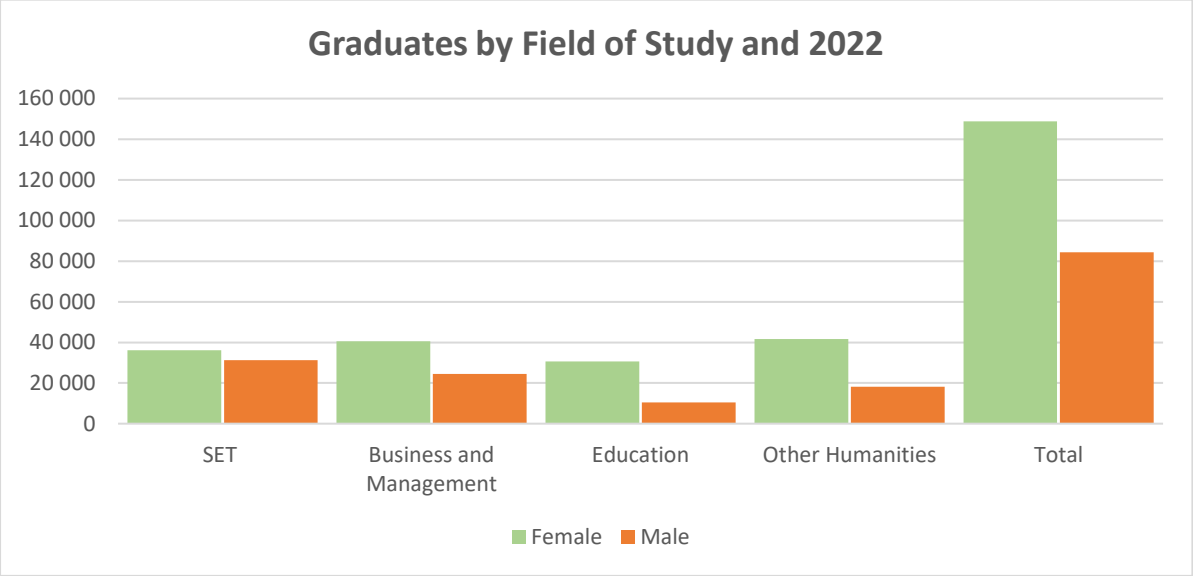


Figure 19: Graduates by Field of Study and Gender (DHET, 2023)

In terms of the trades, the DHET reported 14 379 learners entered in 2021. Similar to the merSETA data, the DHET also notes a skew towards more men in the trades. Figures 19 and 20 below depict the trades entered and competed as reported by the DHET (2023), entries and completions in 2021.

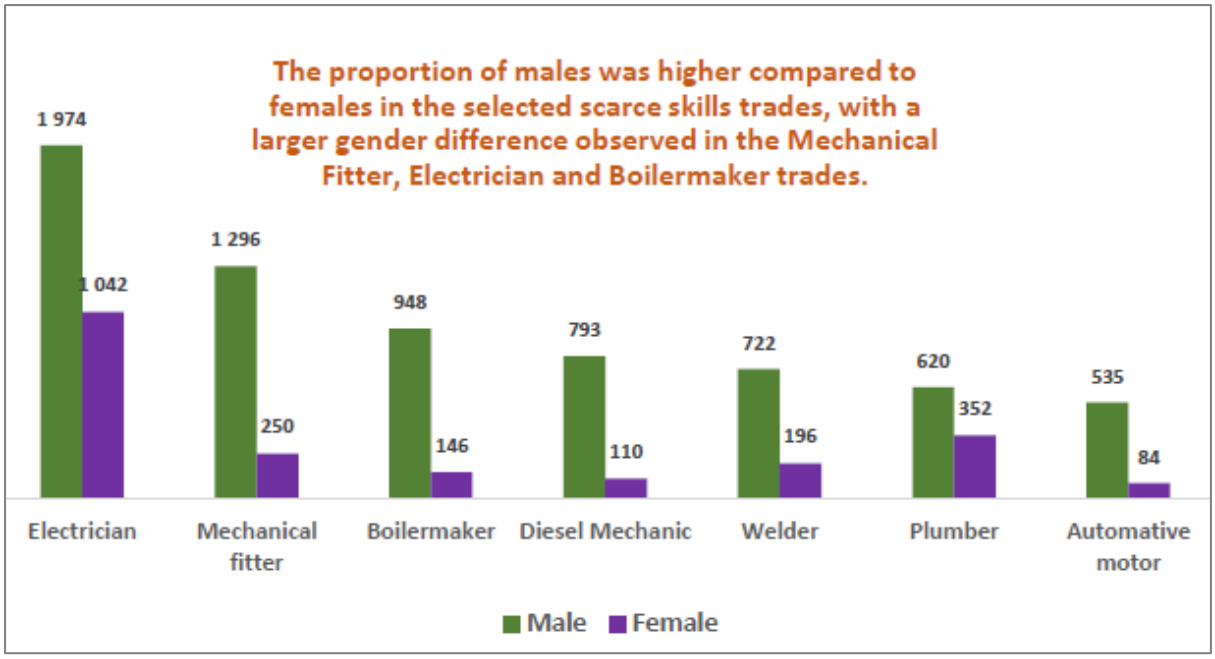


Figure 20: Trades entered by gender in 2021 (DHET, 2023)

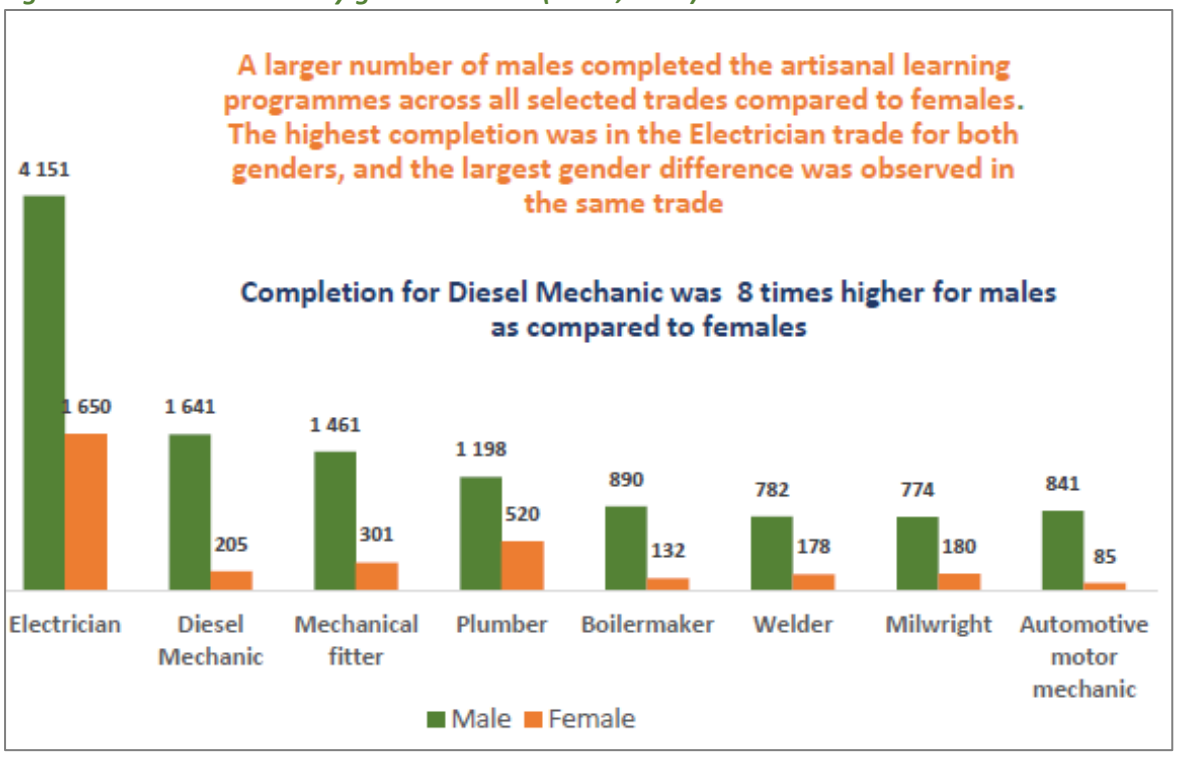


Figure 21: Trades completed by gender in 2021 (DHET, 2023)

According to the merSETA available data for 2022/23, the sector accounted for 3874 learners entered for artisanal training. In terms of female participation, the gender is underrepresented across all trades with proportionally more women entering the electrician trade. In terms of completions, more women complete the electrician trade over any other trade. From both the DHET statistics on critical trades as well as the merSETA data on trades entered and complete, it is evident that there needs to be heightened focus on attracting women into the trades and supporting them for successful completion and trade testing.

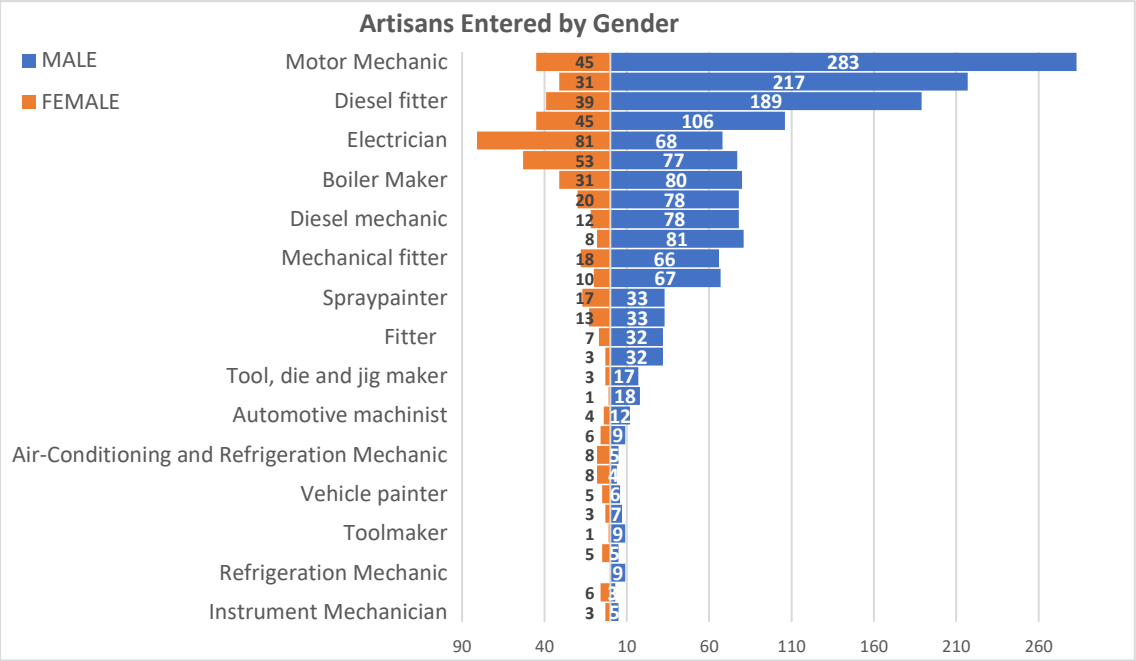


Figure 22: merSETA Trades Entered by Gender (2022/23)[18]

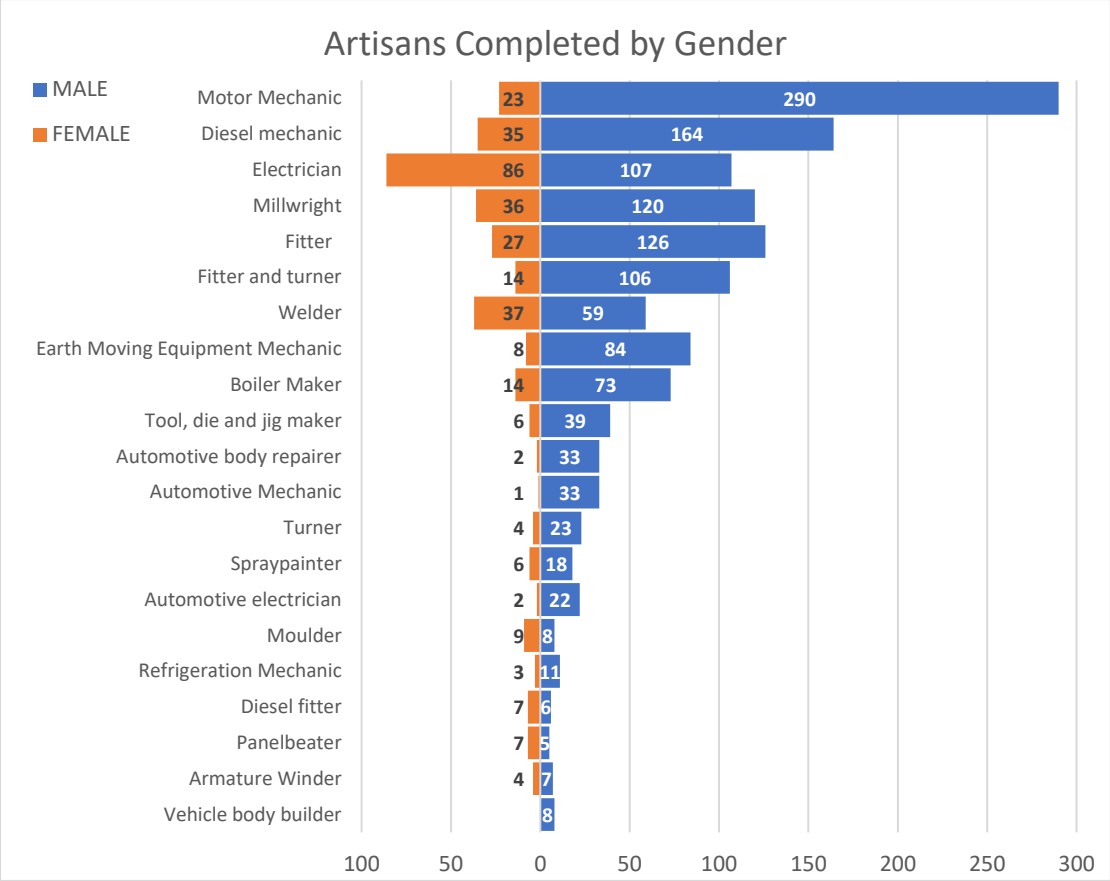


Figure 23: Trades completed by gender (merSETA, 2022/23)

[18] Data comprising fewer than 3 entered or complete omitted from the graph.

3.5 Extent of Occupational Supply

In terms of occupational supply, this section documents the pipeline of skills supported by the merSETA in the 2021/22 financial year.

Apprenticeships & Learnerships

The merSETA arguably remains one of the leading SETAs in its contribution to the realisation of NSDP 2030 goals. During the 2022/23 financial year, the merSETA supported almost 22 000 unemployed learners through various learning interventions, produced almost 4000 artisans and certified over 3000 learners in NQF level 1-4 learnership programmes (QMR, 2022/23).

Apprenticeships and learnerships form a crucial part of the supply of skills to the sector. Therefore, the merSETA continues to support the uptake of these learning pathways and continues to monitor trends in registrations and completions. Just over 1700 artisans completed in the 2022/23 year. The graph below highlights the types of apprenticeships completed in the 2021/22 year.

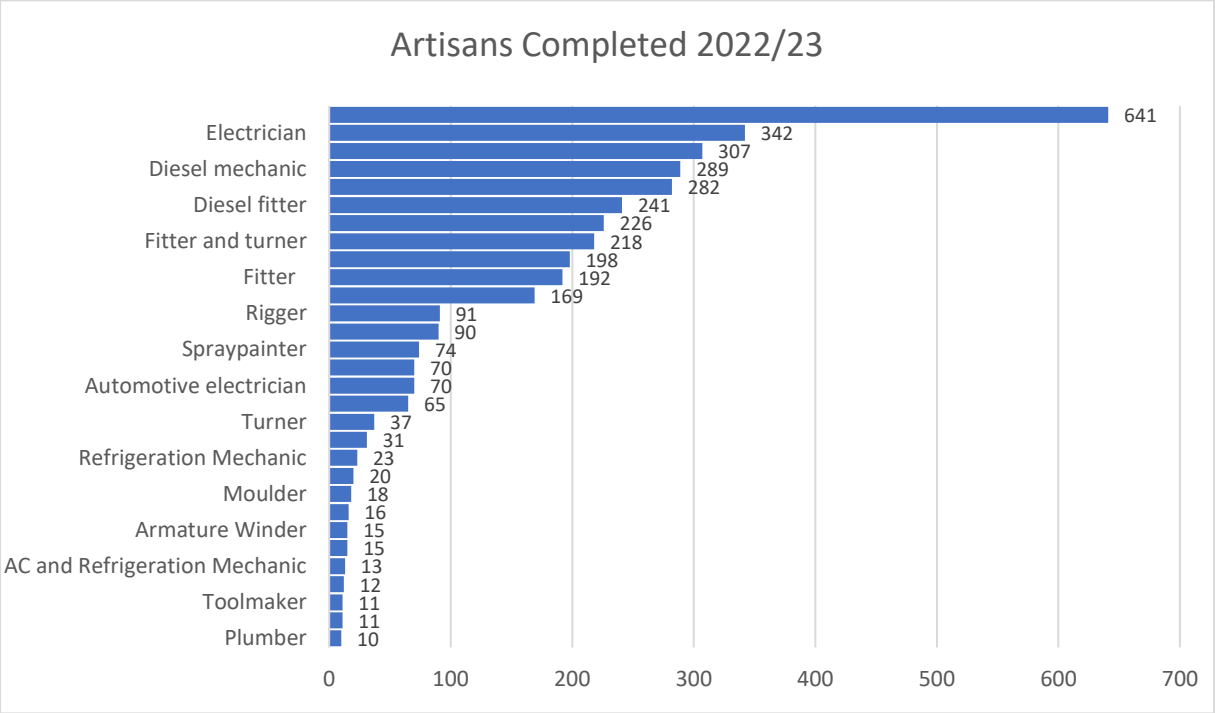
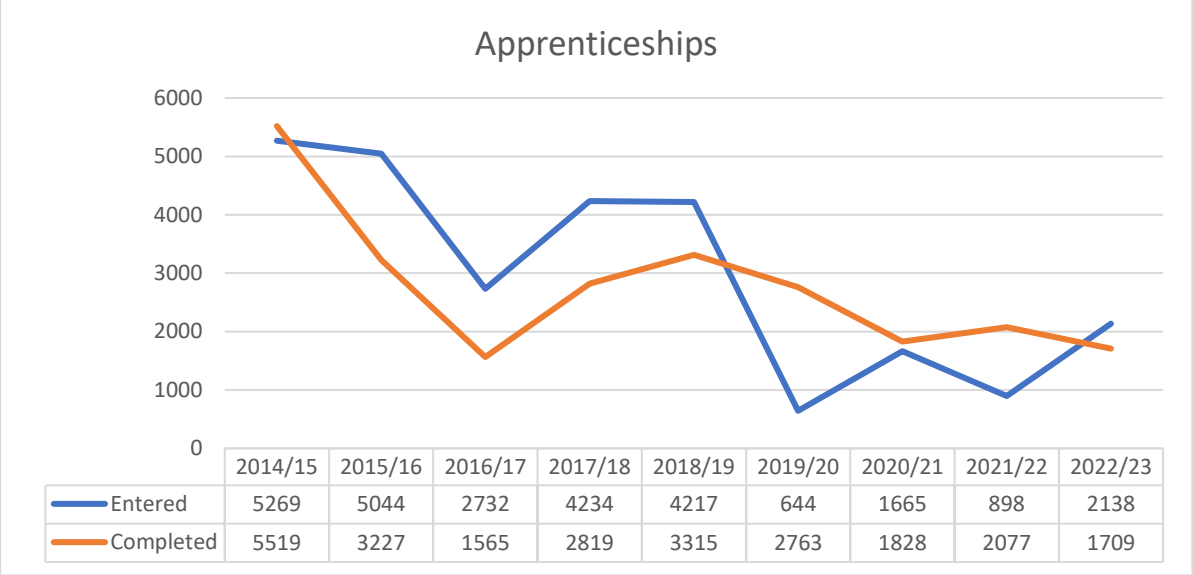


*Figure 24: Types of apprenticeships completed 2022/23(merSETA, 2022/23) (**trades with fewer than 10 completions removed)*

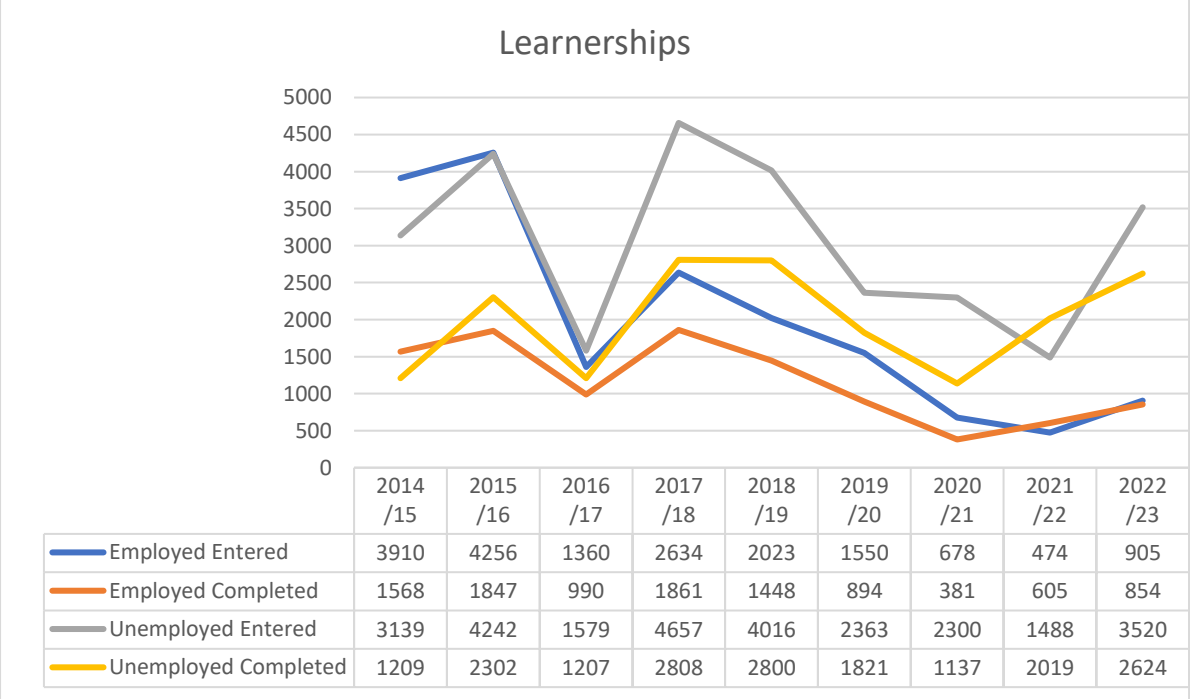
The graph below details the apprenticeship trends from 2014 to 2023. Notably, there was a dip in 2016/17 and then also on the back of the COVID-19 pandemic, the number of apprentices entered and completed declined. Between 2021 and 2023 we see number of artisans entered increasing and artisans completing tending to decline which may indicate additional support required to ensure higher rates of completion in the future.



	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Entered	5269	5044	2732	4234	4217	644	1665	898	2138
Completed	5519	3227	1565	2819	3315	2763	1828	2077	1709

Figure 25: Apprenticeships (merSETA, 2022/23)

The learnership data presented below shows that the number of completions and entries are increasing in the 2021 to 2023 period with levels recovering to pre-COVID and even surpassing 2014 levels in terms of unemployed learners.



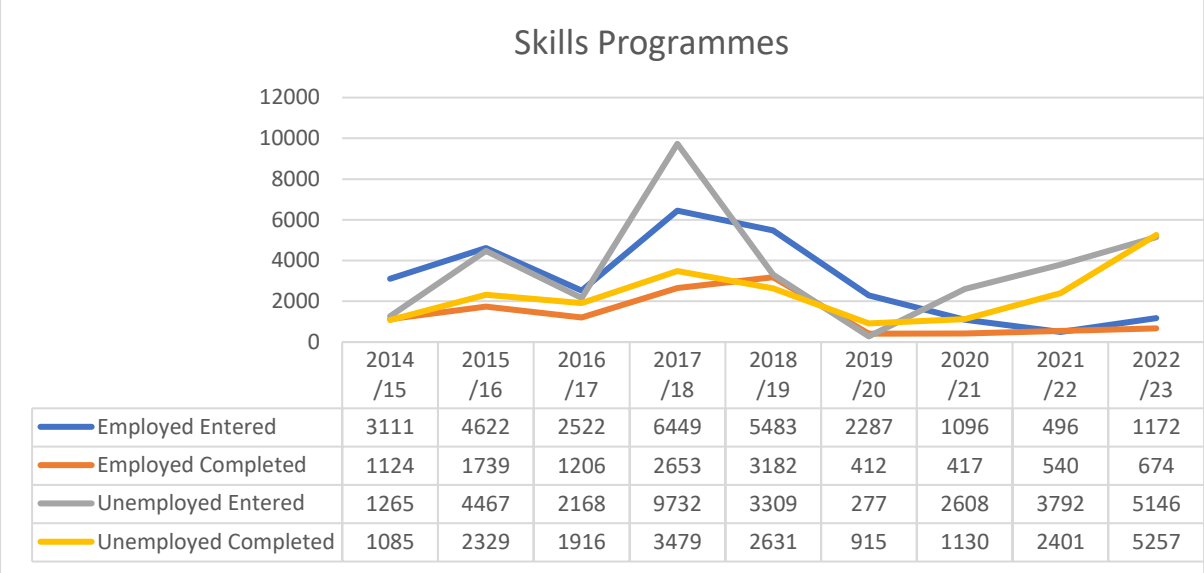
	2014 /15	2015 /16	2016 /17	2017 /18	2018 /19	2019 /20	2020 /21	2021 /22	2022 /23
Employed Entered	3910	4256	1360	2634	2023	1550	678	474	905
Employed Completed	1568	1847	990	1861	1448	894	381	605	854
Unemployed Entered	3139	4242	1579	4657	4016	2363	2300	1488	3520
Unemployed Completed	1209	2302	1207	2808	2800	1821	1137	2019	2624

Figure 26: Learnership Programmes (merSETA,2022/23)

Skills Programmes

A skills programme is a structured learning programme that is occupationally based and when completed it will constitute a registered National Qualifications Framework (Report on Skills Supply and Demand, 2022).

Skills programmes continue to form an important part of training and development, they offer short and focused skills interventions which aids in the upskilling and reskilling of workers in the sector. The figure below shows workers and unemployed works entered and certificated between 2014/15- and 2022/23. It seems that fewer workers are enrolling and completing in the 2020 to 2023 period. Perhaps this indicates a lack of training due to COVID and still prevailing as we enter the post COVID era although numbers are slightly increasing. The numbers for unemployed learners have improved in the last 3 years despite the impact of COVID-19. This may indicate that workers tended to have less ability to access learning during COVID as compared to the accessibility of unemployed learners which may be attributable to lack of funding and time constraints on the part of workers and increased funding and focused efforts for unemployed learners due to policies such as ERRP and recovery efforts to reduce unemployment.



	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23
Employed Entered	3111	4622	2522	6449	5483	2287	1096	496	1172
Employed Completed	1124	1739	1206	2653	3182	412	417	540	674
Unemployed Entered	1265	4467	2168	9732	3309	277	2608	3792	5146
Unemployed Completed	1085	2329	1916	3479	2631	915	1130	2401	5257

Figure 27: Skills Programmes (merSETA, 2022/23)

3.5.1 Sectoral Priority occupations

3.5.1.1 Methodology

The methodology employed for this iteration of the SSP utilised Chamber skills lists emanating from merSETA research projects which includes the Atlas of Occupations, Chamber research reports, sectoral master plans (specifically the Automotive Master Plan and the Steel Industries Master Plan), ERRP skills list, WSP/ATR data and previously compiles Sector Priority Occupations and interventions lists (SPOI). The skills that appear across the lists as well as the mer sector chambers are reviewed and ranked based on demand which is ascertained from the vacancy analysis, WSP analysis and qualitative information from Chamber interviews and workshops as well as merSETA monitoring and development of emerging skills and occupations.

The interventions associated with the skills and occupations prioritised arises out of the merSETA QMR, Chamber Learner Data and WSP data The research team also ensured to consult with the GSC committee, the AA committee and Chambers to acquire the final list for approval and sign-off. There were a series of consultative workshops and discussions with the Chambers held between May and July to ensure the correct skills were identified and that these are a true reflection of the skills in demand before finalising the ranked skills priorities as per section 3.5.2 below.

3.5.2 Sectoral Priorities

When we combine the skills lists as described in the methodology section and account for emerging occupations, the sectoral priority skills are noted below. Only the top 20 occupations are highlighted in the table. A full list of skills priorities can be found as an annexure to this report.

Table 10: merSETA Sectoral Priority Occupations

No	OFO	Occupation
1	2021-132102	Manufacturing Operations Manager
2	2021-652302	Fitter and Turner
3	2021-214101	Industrial Engineer
4	2021-214401	Mechanical Engineer
5	2021-311501	Mechanical Engineering Technician
6	2021-121908	Quality Systems Manager
7	2021-718905	Engineering Production Systems Worker
8	2021-215101	Electrical Engineer
9	2021-411101	General Clerk
10	2021-214103	Production Engineer
11	2021-311905	Industrial Engineering Technician
12	2021-313901	Integrated Manufacturing Line Process Control Technician
13	2021-712101	Metal Processing Plant Operator
14	2021-312201	Production / Operations Supervisor (Manufacturing)
15	2021-721901	Product Assembler
16	2021-832902	Plastics, Composites and Rubber Factory Worker
17	2021-714204	Plastics Production Machine Operator (General)
18	2021-652301	Metal Machinist
19	2021-653101	Automotive Motor Mechanic
20	2021-651202	Welder

3.6 Conclusion

When one considers the contents of the chapter, it is evident that there is demand for higher level skills in terms of managers and professionals as well as skills for the trades – artisans. The current sectoral context however seems to reflect a reduction in terms of expansionary demand due to the lack of vacancies in the sector, however the sector has made capital investments and is seeing growth since 2020. This would therefore imply that there is a clear need for reskilling and upskilling the current workforce and prepare a pipeline of new labour market entrants to take up opportunities when the sector recovers. Skills should be developed in line with national priorities and the drivers of economic growth. Skills interventions however seem to be lagging in terms of the types of interventions required by industry in line with the 4 and 5IR as well as the changing world of work. The notion of micro-credentialling should be elaborated in terms of the benefits it would offer workers and new labour market entrants to build a portfolio of skills in a particular occupation.

CHAPTER 4: PARTNERSHIPS

4.1 INTRODUCTION

All partnerships are informed by the strategic priorities of the merSETA as set out in its Sector Skills Plan, Five Year Strategic Plan and Annual Performance Plan. These plans in turn are aligned to national priorities of development and transformation to address social and economic demands. Furthermore, this chapter assesses and presents an overview of the effectiveness and nature of merSETA' s planned and existing partnerships with

a focus on indicating the objectives, value add of each partnership, successful partnership, planned partnerships and ways of strengthening the existing partnerships while highlighting best practise learnings, in line with national imperatives and sectoral needs in of restoring the economy through the implementation of the ERRP.

Partnerships form a framework for working collaboratively to achieve a common goal, through a mutually agreed division of responsibilities. Therefore, the merSETA defines partnerships as, "a contractual arrangement between one or more parties where the parties agree to a common education, training and/or skills development purpose, aligned to national or sector specific strategic imperatives" (merSETA Discretionary Grants Policy, 2019). It is these partnerships that will be elaborated in this chapter.

4.2 APROACH TO PARTNERSHIPS

The merSETA has developed the partnership model to respond to the mandate of the Skills Development Act of 1998, which encourages SETAs as agents of skills development to establish partnerships with both the public and the private sectors. This is further supported by the NSDP outcomes, which seek to ensure that South Africa has adequate, appropriate and high-quality skills that contribute towards economic growth, employment creation and social development. In addition, the merSETA views partnerships as critical mechanisms to safeguard the delivery of the skills development mandate.

The merSETA partnerships model begins with the identification of the right partners as a key factor for the different types of partnerships being entered. It is imperative to describe the roles and responsibilities of the partnering agencies and ensure mechanisms of constant, consistent and open communication to mitigate potential risks that can impede the achievement of intended objectives. To effectively identify the correct partners, it is important to be upfront about the expectations from the partner, the key expertise required as well as the type of entity required for the partnership – be it a research agency, a University, a TVET college or other entity such as an employer, cooperative, NGO/CBO etc.

Moreover, the merSETA continues to strengthen its strategies for successful partnership through constant programme monitoring and evaluation from inception to completion to ensure that when a partnership closes out there are reliable mechanisms in place to extract credible qualitative information for sharing within the merSETA.

ANALYSIS OF EXISTING PARTNERSHIPS

The purpose of partnerships can be quite varied, but they mainly serve to assist the SETA in fulfilling its skills development mandate. To this end the partnerships are all related to the merSETA strategy in terms of its strategic focus areas, in line with the outcomes of the NSDP. Partnerships are governed by either a Memorandum of Agreement or a Memorandum of Understanding. According to the merSETA grants policy, the following is understood in terms of these:

Memorandum of Agreement (MoA): legal agreement between two or more parties for the execution of agreed project objectives, setting out the terms and conditions of the agreement, and clearly indicating the milestones, deliverables and associated disbursement of funds.

Memorandum of Understanding (MoU): legal agreement that is bilateral or multilateral, written and binding with a common intent. It has to establish the terms and conditions to cooperate on a particular project or programme of projects in order to enable and promote education, training and skills development interventions. The MoU should have an indication of convergence between parties and should lead to specific agreements or MoAs.

have learners attached in that it supports learners to achieve their honours or master's degrees, but it also achieves the purpose of research outputs for the sector.

Table 11: Table 16: Partnership Types

Partnership Types
Employer Partnerships
Employers are a key partner in fulfilling the merSETA mandate – they provide workplaces for skills interventions including apprenticeships, learnerships, internships and candidacy. They also partner with the SETA for training of employed learners.
TVET Partnerships
A key vehicle for training and education, particularly for the trades is TVET colleges. The majority TVET partnerships focus on learning pathways towards learners progressing to become trade-tested artisans through bursaries, learnership and apprenticeship programmes. The partnerships have a national TVET college footprint in all nine provinces, inclusive of colleges in rural areas.
Civil Society, NGO, CBO Partnerships
These organisations play a significant role in communities and assist them in terms of providing services required by the community. These organisations are partners for skills development within communities as well as projects related to strategic focus areas such as GBV, youth development in a rural economy.
Government institution Partnerships
Partnerships with national and provincial government entities in order to align to national priorities and assist with regional skills development interventions. These include UIF, correctional services, public works, NSFAS, Offices of the Premier, DHET, DTIC, etc.
HEI Partnerships
Partnership Higher Education Institutions (HEIs) include inter alia qualification development, research related partnerships, delivery of operational targets through bursaries related to the engineering and manufacturing sectors with a focus on transformation
Research and innovation partnerships
Support for skills development and targeted interventions to stimulate economic growth is based on informed decision making which is guided by credible research. Partnering with the Chambers, HEIs, Employer Bodies, Labour and Private Research enterprises enables credible findings and recommendations aligned to the strategy.
International agency partnerships
Partnership with international agencies afford the opportunity to keep up to date with best practice developments in key sectors internationally, assisting in the development of a community of practice across national borders.

An overview of the number of partnerships by type of partner is illustrated in the table below. The merSETA has entered partnerships with various institutions to advance sector development and growth. This section presents a summary of partnership arising from the merSETA data system in the 2022 – 2023 year. The partnerships are clustered according to entity type and the purpose is elaborated. It should also be noted that partnerships often achieve more than one objective, for example a partnership with an HEI may develop learners in a particular training intervention as well as yield research reports based on the intervention.

Table 12: Type of Partner and Purpose

Purpose	Type of Partner															
	Community College	Private Provider	Employer Body	Government Entity	HEI	International	National Government	NPO	Private Training Provider	Provincial Government	Research Provider	Trade Union	TVET College	NGO/CBO	Other	Grand Total
Artisan training					1		2			8						11
Qualification/curriculum development		4		1	3				1				1			10
Internships, Workplace Learning & Experience					6	1				1						8
Regional Skills Interventions										7						7
Industry 4.0				1	2				1				2			6
Research					3						3					6
Bursaries								3		1		1				5
Community based skills development	4													1		5
Industry related R&D			1		3											4
TVET 4.0 Technical Mentor Development													3			3
Enterprise Development			1												2	3
Lecturer Development					3											3
Industry related skills development			1										1			2
Skills development for marginalised groups							1			1						2
Supporting CoS													2			2
Apprenticeship Support							1			1						2
TBC					1							1				2
World skills				1												1
ARPL							1									1
Green Economy							1									1
Candidacy					1											1
Adult Education	1															1
NCV learners													1			1
Career Awareness					1											1
Grand Total	**5**	**4**	**3**	**3**	**24**	**1**	**6**	**3**	**2**	**19**	**3**	**2**	**10**	**1**	**2**	**88**

TYPES OF PARTNERS AND REASONS FOR PARTNERSHIP

All partnerships with their scope, skills development purpose and start and end dates are provided as annexure to the SSP.

The table below summarises all the partnerships from the year ended 30 March 2023.

Table 13: Partnership by Type and Scope

Partner Type	Institution Name	Scope category
Community College	FS Community Education & Training College	Community based skills development
	KZN Community Education & Training College	
	NC Community Education & Training College	
	WC Community Education & Training College	
Curriculum development	Alan Forsyth	Qualification/curriculum development
	Customised Business Advisory Solutions	
	Elsiemot and Associates	
Employer Body	National Association of Automotive Component and Allied Manufacturers (NAACAM)	Industry related skills development
	Retail Motor Industry Organisation (RMI)	Enterprise Development
		Industry related R&D
Government Entity	Council for Scientific and Industrial Research (CSIR)	Industry 4.0
		Qualification/curriculum development
	World Skills South Africa	World skills
HEI	Cape Peninsula University	Internships, Workplace Learning & Experience
	Durban University of Technology	Internships, Workplace Learning & Experience
	Mangosutho University of Technology	Internships, Workplace Learning & Experience
	Nelson Mandela University	Industry 4.0
		Lecturer Development
		Qualification/curriculum development
		Research
	North West University	Industry related R&D
	Rhodes University	Qualification/curriculum development
	Tshwane University of Technology	Industry 4.0
		Qualification/curriculum development
	University of Cape Town	Artisan training
		Lecturer Development
		Research
	University of Johannesburg	Industry related R&D
	University of the Witwatersrand	Research
	University of Venda	Industry related R&D
	Vaal University of Technology	Candidacy
	Walter Sisulu University	Career Awareness
International	Chinese Culture and International Education Exchange Centre	Internships, Workplace Learning & Experience
National Government	Department of Basic Education	Apprenticeship Support
		Artisan training
		Skills development for marginalised groups

Partner Type	Institution Name	Scope category
	Department of Economic Development and Tourism	Green Economy
	Department of Small Business Development	ARPL
	National Department of Public Works	Artisan training
NPO	Ikusasa Student Financial Aid Programme	Bursaries
	NSFAS	Bursaries
Other	Enterprise Development Social Project	Enterprise Development
Private Training Provider	Chrio Jirah Academy	Qualification/curriculum development
	EON Knowledge Metaverse	Industry 4.0
Provincial Government	Department of Correctional Services	Skills development for marginalised groups
	EC Office of the Premier	Internships, Workplace Learning & Experience
		Regional Skills Interventions
	Free State Department of Education	Regional Skills Interventions
	FS Office of the Premier	Artisan training
		Regional Skills Interventions
	Gauteng Department of Education	Apprenticeship Support
	LP Office of the Premier	Artisan training
		Regional Skills Interventions
	MP Department of Education	Artisan training
		Bursaries
	NC Office of the Premier	Regional Skills Interventions
	NW Office of the Premier	Artisan training
	Saldanha Bay IDZ	Artisan training
	WC Department of Economic Development	Artisan training
Research Provider	RedFlank Solutions	Research
TVET College	College of Cape Town	Industry related skills development
	East Cape Midlands TVET College	Industry 4.0
		TVET 4.0 Technical Mentor Development
	Ekurhuleni West TVET College	TVET 4.0 Technical Mentor Development
	False Bay College	Industry 4.0
	Motheo TVET College	NCV learners
	Tshwane North TVET College	Qualification/curriculum development
	Vuselela TVET College	TVET 4.0 Technical Mentor Development

The table above demonstrates that partnerships centre around key themes related to economic recovery, the SSP and the merSETA Strategy, overall, the merSETA partners assist in terms of:

- Skills interventions
- Research and evaluations
- Qualifications and curriculum development
- Industry development and growth
- 4IR
- Community based development
- Lecturer and TVET management development
- Career awareness.

4.3 PARTNERSHIP CHALLENGES AND MITIGATION STRATEGIES

The table below demonstrates the challenges experienced in partnerships. We have clustered the partnerships by type.

Table 14: Partnership Challenges Mitigation Strategies

Partnership Type	Partnership Challenges	Mitigation Strategies
TVET	Not all TVET colleges have the same ability to ensure successful implementation.	Due to reduced number of workplaces, the SETA must look for alternatives to meet the workplace component, particularly in terms of technologies such as simulations and virtual learning.
	The ability of the SETA to support infrastructure and equipment has raised the quality of education somewhat and provides more scope to partner.	Learner support and management from enrolment to completion and work placement must be carefully managed and monitored.
	There is still a weakness in terms of partnering with employers to open up their workspaces as training spaces	Uptake of SETA programmes must be assessed to better understand demand and supply and plan accordingly - evaluation of programmes is key.
		It is imperative to work with employers as partners for successful for WBL.
HEI	Like TVET colleges, uptake of courses/qualifications can be problematic and recruiting learners may not yield successes.	Implementation of dedicated resources within universities has assisted in successful outcomes
	The workplace component is becoming ever more important with learners requiring work placements to gain practical experience.	As the 4IR is becoming a reality, international best practice is required with regards to the types of interventions offered.
	Conceptualisation and clarity on required outcomes and outputs are not always in place resulting in mismatch between the HEI and SETA expectations.	Learner uptake in key sectors requires monitoring to ensure that the sector is not left behind in terms of the demand for higher skills levels.
Government partnerships	Lack of traction with regards to implementation.	The SETA and the partner must assess whether the interventions and approach are sound and that both parties have the required resources to fulfil their roles for the duration of the partnership.
	Capacity to fully support the project/programme remains problematic.	Effective project management is key as well as ensuring that both partners are committed to C20achieving the objectives of the partnership.
Research - merSETA commissioned	Time delays and availability of key respondents may delay project completion.	Flexibility is required to achieve outputs through tech enabled tools and approached such as online interviews, focus groups and workshops.
	Loadshedding, poor planning and lack of facilities may delay progress.	Video and visual resources assist providers in better understanding the sector and their processes even though they could not meet on site.
Research - Chamber commissioned	·Capacity to conceptualise, develop and critically review research proposals limits scope of potential projects.	Capacity development of Chamber members in terms of research skills has significantly improved their ability to conceptualise projects.
	·Agreement and teamwork among members may delay implementation.	Larger projects with new innovations and a bigger scale are possible due to increased capacity and teamwork.
		Topics are informed by prior research and other credible sources.

4.4 SUCCESSFUL FLAGSHIP PARTNERSHIPS

The merSETA has established national and international partnerships to facilitate skills development, improve its understanding of the sectors to improve skills planning and keep abreast of innovations in the sector.
While there have been some challenges with respect to partnerships, the merSETA has noted many successes through its partnerships and will work to continually strengthen partnerships to meet and exceed its mandate. Working towards an accepted partnership model in collaboration with stakeholders is of key importance to achieve greater efficiencies. To this end the merSETA is cognisant of the need to ensure that partnerships are responsive to current needs which require quick turnaround times but also a considered well conceptualised approach to each partnership. The lead-times of partnerships therefore adapt to the needs of the sectors, the urgency of the interventions required as well as the magnitude of the interventions required.

A prime example of a flagship partnership is the one between merSETA and the University of the Western Cape (UWC) through its Institute for Post School Studies (IPSS). The Partnership was initiated in 2016 and was concluded in March 2023. It comprised seven workstreams that has assisted in the supply of PHD graduates and research outputs and articles as well as lecturer development for the PSET sector. The UWC reported that the partnership with merSETA was different from others due to the effective governance structures put in place to ensure delivery and high quality, namely the Project Management Committee and Project Steering Committee. In addition, the HEI commented on the considered and thoughtful approach implemented to not only ensure success but ensured project integrity and best outcomes for the learners and institutions involved. The tables below further elaborate on some recent flagship partnerships implemented.

Table 15: Flagship Partnership Examples

Project Name	Purpose & Objectives	Outcomes and key results
TVET 4.0 for the Solar Photovoltaic Technician Qualification (SPVT)	**Purpose:** To prepare 7 TVET Colleges located within the designated Renewable Energy Development Zones (REDZ) for the teaching and learning associated with the SPVT qualification. **Objectives:** • Each College is to employ 3 recently qualified Electrical Engineering graduates to complete a development program and the Advanced Diploma TVET Lecturer (NMU). • SARETEC as the accredited SPVT qualification provider carries the oversight responsibility for the implementation of the program over the 7 TVET Colleges. • A key element in the program is the installation of a mini solar farm at each College that is designed for teaching and learning as well as an energy supply for the college. • The curricula linked to the ICT4APP will be utilised for SPVT qualification to track learner completion of the knowledge components online, book learners for practical projects at the TVETC and assign learners to workplace projects at approved workplaces.	• 21 Candidate SPVT Lecturers selected and employed by 7 TVET colleges. • Candidate SPVT Lecturers complete the Adv. Dip TVET Lecturer • Candidate SPVT Lecturers complete the gaps identified in the Electrician Trade qualification to prepare for the Electrician Trade Test • Candidate SPVT Lecturers complete the gaps identified in the SPVT Occupational Qualification to prepare for the EISA. • Candidate SPVT Lecturers assist the TVET College processes related to the SPV infrastructure acquisition, installation, operation and maintenance. • TVET Colleges apply for SDP accreditation at the QCTO for the SPVT qualification. • Pilot project with first learners on the SPVT qualification commences
Atlas of Occupations	Purpose: To provide current and future employees and employers with information on the types of jobs and skills that are currently in demand and are likely to be in demand in the future.	• The project was completed in the first quarter of 2021. • Desk research on new technologies and impact of changing work conditions was completed. • The final Atlas highlights key occupations in demand across the 6 merSETA

Project Name	Purpose & Objectives	Outcomes and key results
	Objectives: • To present occupational profiles of occupations and associated skills that are likely to be affected by 4IR trends. • For each manufacturing occupation, a set of indicative tasks, skills, knowledge and qualifications are presented. • A website/online tool deployed for ease of access. • This project aims to provide a digital guide for career path design within the new tyre manufacturing sector.	Chambers and indicates the impact of 4IR on occupations. • The Atlas also elaborates on qualifications required as well as top up programmes that are useful each of the occupations. • Website still to be migrated to the merSETA platform.
New Tyre Chamber Career Map Tool	**Objectives:** • Develop a career mapping tool for key occupations in the new tyre chamber. • Develop Software coding to support the mapping of identified role profiles in the sector with each role profile defining technical skills, soft skills and qualification prerequisites required.	• Software developed and deployed on the merSETA system (URL for access: ntc.merseta.org.za) • A user manual to assist correct usage and management of the career mapping tool against standardised OFO codes. • New role profiles can be added.
ViroVent Innovation Project	**Purpose:** • To encourage the utilisation of existing hi-tech engineering related laboratory infrastructure housed at HEIs towards the supply of skills in a new manufacturing paradigm demanding rapid technology innovation management and diffusion into industry production environments. **Objectives:** • Each HEI partnership had unique planned outcomes which included the following: • Registered post graduate students; unemployed graduates and P1 and P2 WIL placements (UJ, UCT) • Asynchronous short learning programs and mentorship to support stage gate knowledge and skill acquisition (UCT, UJ, NMU) • New short course curricula (UCT, UJ) • Student publications (UCT) • New patents registered (NMU) • Product development competitions (UCT) • BiPAP ventilator designed, prototyped, tested and SAPRHA certification (UCT, UJ)	• The project was associated to the mechanical ventilator at the start of the C-19 pandemic as a means through which learning, and skills were to be acquired. • Two HEI consortia and one standalone university responded to the Request for information which was progressed into full scale projects. • A follow-on project+C20 has been approved for UCT and its consortium members to further develop their approach into an "Industrialisation Fellowship" designed to support the industrialisation of new products (or reverse engineered products) for localised manufacture of new products and components. • The Industrialisation Fellowship followed the principle of inviting capable master's and PhD students into wrap around support to get new products and components into the South African manufacturing eco-system.
FESTO-TVET: Establishment of the 4IR Skills Development Centre	**Purpose:** • Public-private partnership with merSETA and Original Equipment Manufacturer (OEM), FESTO PTY LTD to establish 4IR Skills Centres in TVET colleges in all 9 provinces. • Objectives: • Establish and equip a centre at a selected college with 4IR equipment and tools.	The project has kicked off with 6 TVET Colleges 1.Ekurhuleni East, Gauteng 2.Maluti, Free State 3.Lephalale, Limpopo. 4.West Coast, Western Cape 5.Waterberg, Limpopo 6.Vhembe, Limpopo

Project Name	Purpose & Objectives	Outcomes and key results
	• Develop and introduce curricula that will have the following components to support TVET Colleges: • Awareness training for industry 4.0 • Introduction to industry 4.0 for Management • Industry 4.0: Applications and practice. • Train 80% of identified TVET staff to a maximum of 40 • Train 70% of identified management to a maximum of 30 to increase their knowledge about Industry 4.0. • Develop at least two trainers per TVET on hands-on training to become Master Trainer for Industry 4.0 • Each identified TVET is equipped with Industry 4.0 lab equipment and teach Industry 4.0 in their classes. • 70% of students per year in the addressed vocations gain Industry 4.0 related knowledge and skills during vocational education required by industry and improve their employability.	

4.5 PLANNED PARTNERSHIPS

In order for the merSETA to continue to deliver on its mandate and align to its strategic objectives, partnerships must be put in place to service the sectors in line with sectoral master plans as well as national strategies and plans.

Based on an analysis of the drivers if skills as well as the policy framework within the reimagined industrial policy, the following considerations inform future partnerships

- Partnerships with local government to address local skills needs and assist in upskilling youth and marginalised groups.
- Partnerships with Employers are critical to ensure experiential and work-based learning. Further opportunities are sought to respond to the requirements of new and emerging technologies, innovations, production processes and sustainability as they relate to skills demands.
- Enhancing partnerships with TVET colleges to address local skills needs in provinces as well as ensuring curricula are updated to keep pace with industrial developments, new and emerging skills and occupations.
- Expanding partnerships to readily address transformation, unemployment and small business development. These partnerships will bring together industry, skills development providers (TVETs, HEIs etc.) and the SETA as an intermediary to provide interventions and skills to benefit both communities and industry.

At the time of compiling this report the following partnerships have been put in place commencing in the first and second quarters of 2023/24:

- **EON Knowledge Metaverse Programme**: This partnership provides 57 500 licences for education and training institution using Augmented Reality, Virtual Reality and Artificial Intelligence.
- **Free State Office of the Premier:** merSETA to support 4000 learners in skills programmes, artisan development and ARPL, TVET WIL learners, bursaries for students with outstanding student debt, support for energy and computer labs at TVET colleges to upskills the employed and unemployed youth. This contributes to social economy, public service delivery and youth skills development.
- **Northern Cape Office of the Premier:** over 2000 learners in skills programmes, renewable energy learnerships, bursaries, artisan development and ARPL. This is targeting youth categorised in *"Not in*

employment, education and training" (NEET). This contributes to social economy, green economy, public service delivery and youth skills development.

- **NSFAS:** bursaries for minimum 300 "missing middle" students over three years. This contributes to the youth skills development.
- **Gauteng Department of Education:** support of eleven (11) technical schools with tools and equipment to develop pipeline of artisans into mer sector.
- **Gauteng City Region Academy:** providing 5000 learners with Solar PV Microgrid & Business skills and Entrepreneurial Training targeting the unemployed youth contributing to green economy and social economy.
- **North West COGTA**: providing funding for 44 candidacy programme learners over three years to be placed in municipalities to support public service delivery.

These partnerships have been put in place to support both provinces and the youth. They reaffirm the merSETA commitment to local and national skills development and supporting the Presidential Youth Employment initiative along with key tenets of the National Development Plan to put South Africa on a growth trajectory by supporting skills development and providing opportunities for the youth and new labour market entrants to complete and obtain their qualifications in line with arising opportunities in the labour market.

4.6 CONCLUSION

For the merSETA, partnerships present the main mechanism for achieving its strategic objectives and to deliver high quality services to its stakeholders and learner beneficiaries.

The current economic climate calls for concerted effort to support economic recovery and growth. The merSETA will have to ensure that it can rapidly respond to the sector to assist in relief efforts, implement new skills development interventions in line with the demands of new technologies, reindustrialisation, and localisation efforts at a high level and more concretely in terms of supporting marginalised groups through transformation, inclusivity and access. In addition, the mechanisms through which training is delivered must also be aligned to new technologies to assist learners to be successful in their skills development journeys. This relates to using smart phones for micro-credentialling, following up on support required and keeping in touch with beneficiaries of training.

CHAPTER 5: SETA MONITORING & EVALUATION

5.1 INTRODUCTION

Monitoring & Evaluations (M&E) at the merSETA plays an important role in improving both the operational and organisational performance as well as to track the results and impact of its skills development interventions. The purpose of this chapter is to highlight the role of M&E in supporting merSETA' s approach to skills planning, as well as how strategic priorities (set out in the merSETA SSP) are translated in the entire planning value chain of the SETA. It will also recommend strategies to improve efforts to meet these skills priorities, as well as systems for planning in the SETA.

5.2 THE MERSETA APPROACH TO M&E

Monitoring and Evaluation at the merSETA goes beyond the compliance reporting of performance. It adopts a results-based approach by focusing on performance and the achievement of results (outputs, outcomes and impact). The role of M&E in the strategic planning process/value chain is highlighted in Figure 44 below.

Figure 28: Role of M&E in the strategic planning process

Monitoring and Evaluation plays a key role in scanning the mer sector, planning, implementation of programmes and projects and the reporting of achievements:

Environmental scanning/ monitoring: Monitoring economic, social, technological, legal and environmental developments in the mer sector so as to better understand the context to inform the development of credible plans that are responsive to the sector and national priorities.

Strategy formulation: The merSETA strategy planning process comprising of five linked components (the Sector Skills Plan, Strategic Plan, Annual Performance Plan, Operational Plan and SLA) is underpinned by a strong monitoring and evaluation process. The formulation of outcome and output targets is underpinned by an understanding of a complexity of factors that include among other things monitoring of past trends.

Implementation: The successful implementation of programmes, projects and activities identified through the planning processes on time and within the budget requires constant monitoring and evaluation to improve current and future management of outputs, outcomes and impact. Monitoring and evaluation are key in tracking progress, identifying the scope for improvement and better understanding the challenges and opportunities.

Reporting: Reporting is key in improving transparency and enhancing oversight over the financial and non- financial performance of the merSETA. The merSETA has implemented a procedure for annual and quarterly reporting to facilitate effective performance monitoring, evaluation and corrective action.

5.3 Key systems supporting M&E.

The following systems have been critical in supporting the institutionalisation of a monitoring and evaluation system at the merSETA:

Table 16: merSETA' s systems that support M&E

Applied Research and innovation system		
The applied research and innovation system *designs* and *tests innovative* and scalable solutions towards solving skills related problems identified through research. Monitoring and evaluation plays a key role in identifying systemic challenges and blockages in the skills development ecosystem which can then trigger ideas to be further researched and test through the innovation system. A significant example is the ICT4APP which was conceptualized after data from M&E processed showed challenges in the traditional apprenticeship system. The merSETA and the CSIR Meraka responded to this challenge by using a 4IR paradigm to re-imagine and develop a high quality new apprenticeships This initiative is set to be instrumental in developing skills for the sector in light of challenges such as the shortage of workplaces.		
Quality Assurance system		
The quality assurance system is a critical component of programmes and projects implementation. Assures the quality of merSETA funded interventions, to ensure alignment to industry expectations. It is also critical in ensuring that learners receive quality training consistent with the NDP and NSDP vision of access to quality education and training, to enhance the capability of the South Africans to be active participants in developing the potential of the country.		
The merSETA Quality Management System (QMS)	**Knowledge Management (KM) System.**	**Labour Market Information (LMI) System.**
The merSETA has Implemented in line with ISO 9001:2015, an international standard to strategically benchmark, guide and support programmes and processes so that the outco mes and outputs are in line with the merSETA Quality objectives. This is critical in supporting the merSETA in meeting its stak eholder and regulatory requirements as well as improving i ts effectiveness and efficiency on a continuous basis. The ISO 9001:2015 requirements identify performance eval uation as a critical performance indicator for the entity that needs to be monitored, analysed, and evaluated. The merS ETA has, therefore, adopted internal audits assessments an d management reviews as tools and mechanisms to ensure that the processes are functioning as per the planning requirements.	The merSETA has implemented a knowledge management system for promoting the effective management and gover nance of information and knowledge as a strategic asset. KM guides planning, strategic decision making and operatio nal efficiencies in terms of operational and programmatic outcomes and outputs. The KM system has been instrumental in driving the digital transformation agenda to transform organizational activities, processes, competencies and models to fully leve rage the changes and opportunities presented by digital tec hnologies.	The merSETA has established a labour market information sy stem for coordinating, collection, processing, storage, retriev al, and dissemination of labour market information. The M&E system is a critical component of the merSETA labour market information system to provide credible data f or skills planning in the mer sector. Strengthening data mana gement systems are key to the successful implementation of LMI system through a process of reviewing and continuous i m- provement. Similarly the KM system also works in tandem with the LMI and M&E data systems to ensure quality data.

5.4 USING DATA AND INFORMATION TO SUPPORT RESEARCH AND SKILLS PLANNING

The merSETA M&E Framework provides a set of principles and a clear roadmap on how M&E functions should be executed across the organisation. This cycle consists of the following main steps (Figure 40): collect, analyse and validate performance information in relation to the Strategic Plan and APP. At each phase key data and information is reviewed and analysed and qualitative inputs are recorded to strengthen planning. At each juncture there should be mechanisms in place to keep the SETA on track in terms of its strategic and performance imperatives. The processes of the organisational wide M&E at the merSETA are summarised in the figure below:

Figure 29: The merSETA organisational wide M&E process

5.5 STRATEGIC PRIORITIES CAPTURED IN THE STRATEGIC PLAN and ANNUAL PERFORMANCE PLAN

The merSETA strategic planning process consist of five linked components, the Sector Skills Plan, the Strategic Plan, The Annual Performance Plan, Service Level Agreement (SLA) and the Annual Operational Plan. The Sector Skills Plan forms the foundation of the planning process and informs the Strategic Plan and Annual Performance Plan. The strategic priority actions that were identified in the 2022/23 SSP update and guided the development of the 2022/23 SP and APP are summarised below. The extent to which these have been addressed is also highlighted in table 19. The merSETA is also implementing several projects and programmes to address these priorities through Discretionary Grant funding. Ongoing monitoring and evaluation of these programmes is therefore critical in ensuring that these strategic priorities are met. The Accounting Authority and its sub-committees is set to play a key role in monitoring the implementation of these priorities.

Table 17: Implementation of priorities identified in the 2023/24 SSP, SP and APP

Priorities identified in the SSP and captured in the APP/SP	
Supporting Structural Economic Transformation through growth and inclusiveness:	Inclusive support for youth, women and disadvantaged groups was prioritised.
	2311 approved for mandatory grants were small companies.
	416 funded for training on entrepreneurial skills to support establishment of own business.
Supporting skills for the changing world of work	Seventeen percent of DG allocations were allocated to high level skills such as professionals, managers, and technicians in line with sectoral priorities.
	In addition to the research on the green economy and transforming skills due to new technologies, the merSETA concluded a paper on “the impact of 4IR on manufacturing jobs”.
	Continued research on economic complexity and frontier manufactured goods.
	Identified key skills to support the ERRP to assist growth in the sectors and ensure opportunities for workers and graduates of the future.
	Career awareness at 50 events, reaching hundreds of learners (pipeline).
	TVET and HEI partnerships, bursaries and skills programmes supported around 8000 learners.
Supporting skills for sustainability, the green and circular economies	Continued support and development in the curricula related to the ICT4APP to re-imagine and develop high quality, self-driven apprenticeships.
	Researching virtual and simulated training interventions implemented.

Priorities identified in the SSP and captured in the APP/SP	
	Supporting the development of learning factories through the CSIR and two TVET colleges implemented and continuing.
	Supporting HEIs in R&D for 4IR related skills interventions implemented and continuing.
	Four TVET colleges were funded for merSETA occupational programmes, equipment and workshop infrastructure.
	The SETA however failed to implement sector research for TVET growth in occupationally directed programmes due to restricted access to TVET colleges during the lock-down to poor uptake by TVET colleges
Exploring and supporting the role of the mer sector in the digital economy	Finalised a paper on "the impact of 4IR on manufacturing jobs".
	Researching virtual and simulated training interventions implemented concluded
Continuing to strengthen the role of the SETA as an intermediary body	merSETA supported 1023 employers
	2311 small businesses supported
	25 NGOs and CBO
	Agility to respond to the needs of the sector is demonstrated in the many partnerships.

5.6 Interventions implemented in support of the ERRP Skills Strategy

The merSETA has identified interventions in the mer sector to support the ERRP themes. In addition, an analysis was conducted to identify the skills for the manufacturing sector aligned to the ERRP and sectoral master plans. These were workshopped with stakeholders and have also been prioritised in the merSETA skills priority occupations, these will therefore be prioritised for funding. The merSETA has opened windows for Discretionary Grants (DG) calling for proposals from entities to apply for special projects funding for interventions to support the themes aligned to the ERRP including skills aligned to the merSETA SSP, Skills for economic growth, support for cooperatives, skills for transformation, skills for rural and township economies, green skills and skills for entrepreneurship and the youth among others. Proposals were received and are being evaluated after-which the merSETA will enter strategic partnerships with entities whose proposals met the DG criteria. An additional funding window has also been opened for July and August 2022 to allow further opportunity for proposals aligned to these themes. The merSETA will track and monitor the implementation of these initiatives.

5.7 MEASURES TO STRENGTHEN ACHIEVEMENT OF SKILLS PRIORITIES

The merSETA in the 2022/2023 financial met some of its performance targets. Although there were system related challenges, the SETA was able to address the priorities that were identified in its strategic documents. Key areas of improvement for the upcoming reporting period relates to system

issues, records management and contracts management. Together with the M&E and QMS units, the KM unit has implemented a digital ecosystem project to address key challenges, facilitate a change management process and ensure alignment of key roles in line with the organizational development process currently underway. These processes have been initiated to ensure that the merSETA is able to maintain and exceed its ability to facilitate high quality skills interventions that are relevant to the sector.

New developments and state of the art technologies are transforming the sector to be a greener, to have advanced and competitive business operations and sophisticated customer centred interventions which will be favourable among the youth and new labour market entrants. It is imperative to produce a supply of learners with the skills to take up these opportunities. In response the merSETA is investigating opportunities to use simulated learning and virtual learning factories as workspaces. In the face of deindustrialisation, the merSETA is also looking into ways of using small business as spaces for training while advancing the community development and strengthening its response to supporting the social economy.

The key interventions to improve performance related to skills priorities are described below.

Improved Data systems - The importance of effective data and information management at merSETA cannot be over emphasized. Reliable and valid data is important for improving all SETA operations from planning to implementation and reporting. Without good data and data processes all strategic decisions are stymied (hindered). Data can drive key decision making and strategies. To this end data management and data governance is cited as fundamental for operational efficiency and effectiveness.

Partnerships – Partnerships are the vehicle through which most of the SETA's priorities are met. The partnerships model has assisted the merSETA in framing its partnerships and related agreements to better assure positive outcomes and successful agreements. Through the M&E unit, further evaluations will be completed to strengthen the merSETA' partnerships agreements.

The merSETA Chambers as key partners in skills development and planning – it was reported in the previous iteration of the SSP that the merSETA has positioned itself to effectively respond to the NSDP by reconstituting its chambers. This was implemented to promote responsiveness to industry and worker needs utilizing a value chain approach to drive the implementation of the NSDP. Now with the adoption of the ERRP and related skills strategy, this approach is of paramount importance, particularly with respect to the automotive sector as there have been major investments in the sector in support of the SAAM 2035. The imperatives of reindustrialization and localisation are emphasized.

The merSETA business model - The merSETA continuously reviews its grant and funding mechanisms to respond to the changing priorities. The Discretionary Grant funding mechanism for example is increasingly targeting funding of projects that respond to merSETA strategic imperatives and skills priorities as informed by research (including evaluation studies).

Evaluations and Efficient QMS to support continued improvements in programmes – In addition to evaluation projects to improve programmes, there is a need for streamlines processes and monitoring of progress within partnerships and programmes. The framework provided by ISO 9001:2015 needs to be implemented and adhered to show that through meaningful and relevant and data analysis that targeted improvements can be made and risk monitored and mitigated to support further refinement of internal operations. Evaluation studies will help to identify areas of improvement and ultimately help merSETA to set goals more efficiently.

Continuously improving and monitoring internal processes - The merSETA continues to refine its performance information reporting procedures in accordance with its ISO standard. This procedure details the process to be followed to collect, collate, verify, and store performance information. This will ensure continuous improvements related to the reliability, validity, accuracy, completeness, and traceability of actual performance achievements.

5.8 CONCLUSION

Many lessons have been learned in the past financial year with respect to the importance of data, data systems and key decisions all underpinned by a robust M&E framework. This is further supported by QMS to put in place effective and efficient processes which also accounts for and mitigates potential risks. The merSETA is committed to continuous improvement of its M&E and QMS systems to guide successful operational and reporting outputs, the M&E model and resource allocation are gaining traction and will continue to assist the merSETA in achieving its mandate.

This chapter has outlined the merSETA' s approach to M&E as well as highlighting some of the shortcomings that tend to threaten the performance of the SETA. Continuous improvements are required for successful M&E which is a key enabler for all processes, outputs and outcomes. Data was identified as playing a central role on enabling strategic decisions however just as workers and learners have to be agile in the current technologically advanced world, so too must institutions such as SETAs also take on for themselves the challenge of ever improving their operations to meet the needs of their stakeholders and partners. Overall, an institutional approach to M&E must still be adopted to effectively take the merSETA to the next level in terms of its sophistication and agility in closing the skills gap within a rapidly changing world. New approaches and enhancements are currently underway with respect to refining the data system, improving and brining skills interventions up to date with technological advances in the sector as well as continuous review of effective partnerships. The merSETA is confident that in time, M&E will improve across all internal operations and across the PSET system. This will be improving planning processes including research systems and organisational processes of the merSETA and the national skills development landscape.

CHAPTER 6: STRATEGIC SKILLS PRIORITY ACTIONS

6.1 INTRODUCTION

This chapter consolidates the key economic, labour market, and skills change drivers that should inform the merSETA skills development priorities. It also provides a set of skills development priority actions from which realistic and achievable plans can be developed and implemented. Following the adoption of the SSP the AA has the responsibility to put in place a 5-year Strategic Plan (SP), Annual Performance Plan (APP) and Service Level Agreement (SLA). These then become the basis upon which the CEO and management develop an operational plan inclusive of programmes and projects to be implemented.

6.2 SUMMARY OF FINDINGS FROM PREVIOUS CHAPTERS

This iteration of the merSETA SSP update has been written within the context of an economy that has massively slowed under the pressure of rising inflation, interest rates, geopolitical tensions and loadshedding.

The SSP has reinforced concepts introduced in the 2023/24 update, highlighting the reimagined industrial strategy, economic reconstruction and recover as well as sectoral master plans.

Chapters 1 presents the mer sector socioeconomic context, its scope of coverage and characteristics in respect of employers and employees. The chapter demonstrated the constraints of doing business in South Africa in the current global and local economic climate and the ongoing scourge of unemployment and marginalisation of women, the youth and persons with disabilities. The employers in the sector are still in survival mode, particularly among small businesses. The labour market still demonstrates a character of low to mid-level skills for the majority of its employees and in particular the youth. Increased efforts are required to match skills in the labour market with those that are needed to meaningfully participate in an industry that is set for growth.

Chapter 2 elaborated on the skills drivers including the notion of deglobalisation, reindustrialisation and localisation as well as the shift to renewable energies and the green economy. The skills driver's section was wrapped up by examining the need to adopt newer, cleaner and more efficient technologies and the impact of these on the world of work. Chapter 2 also highlighted the key National Policies and Plans, including the master plans and raised the skills issues and interventions required to align with the reimagined industrial policy for SA.

The sectoral context as well as the policy environment guides the skills planning process by highlighting key considerations in terms of socioeconomic inequality, occupations (division in terms of jobs at risk of automation and jobs that a less at risk), access to relevant skills pathways and interventions and the prevailing legacy of a sector that does not align its equity composition with that of population dynamics. Furthermore, the context is dichotomous in terms of adoption of technologies, the South African manufacturing industry tends to lag behind the developed world and similarly in terms of national business, small and medium business lags behind large multinationals in terms of agility in technology adoption and upskilling workers to keep pace with global demands.

Chapter 3 unpacked supply and demand side dynamics in terms of occupations and skills. From a supply side, women, the youth, and the disabled are still side-lined in terms of opportunities which are dwindling in the labour market despite the slight increase in vacancies. In consideration of the findings in chapter 2 there is much to be done to support interventions that keep pace with technology and the changing world of work for both the formal and informal sectors, including rural economies. The green economy inclusive of green production, transitioning to a zero-carbon footprint and the circular economy presents opportunities for development and growth, however the education sector needs to expedite interventions utilising technologies and micro-credentials to empower learners to access relevant and affordable training, and build a career path that can respond to changing labour needs.

Chapter 4 highlighted the myriad of partnerships which are instrumental in responding to the skills mandate of the merSETA however further refinement and careful consideration is needed to shape future partnerships that will benefit the country in terms of becoming the skills enabler for reconstruction, reindustrialisation, recovery, and growth.

Chapter 5 highlighted some of the achievements, challenges and opportunities that arose in the last financial year in terms of the SETA mandate. Yet again it was emphasised that key internal resources are needed to provide skills to leaners that need it to reach their potential in a precarious labour market. Strengthened internal systems and controls will go a long way in ensuring excellence in service delivery. Moreover, the skills interventions must be strategic, informed by credible data and information and they must empower learners and workers with the tools needed for success.

6.3 SUPPORTING SYSTEMS FOR SKILLS PRIORITIES

In order to build a stronger SETA that is responsive to the changing skills development ecosystem, the merSETA needs to strengthen its systems to support the development and implementation of a responsive strategy in times of uncertainty. These systems require clear objectives and plans. These include:

6.3.1 A refined research and implementation plan

Research informs interventions, innovations and further research requirements, to this effect the merSETA should put in place a process for capturing knowledge generated to inform the development of new programmes, projects, skills interventions, and strategic priorities.

6.3.2 Digital ecosystem implementation

The recognition of data and technology as a strategic asset for strengthening strategic planning, strategic decision- making, performance reporting, governance and operational efficiency calls for the need to develop a strong data management and governance system supported by KM, M&E and QMS systems.

6.3.3 M&E practice aligned to the digital ecosystem.

To affect change in the organization and empower the organization in effective monitoring and reporting, the organization needs to integrate M&E into its key processes and systems. Quality assurance, records management, quality management and management information systems need to be streamlined.

6.3.4 Partnerships prioritised and the preferred model of sectoral engagement.

Proactive partnerships informed by strategic priorities responsive to the needs of the sector and national priorities will remain pivotal in the development and implementation of skills development programmes and initiatives.

6.3.5 A strengthened governance, administrative and resourcing system

The development and implementation of systems, processes, and mechanisms for enabling the merSETA to fulfil its mandate in these unprecedented times need to be supported by a strong governance, administrative and resourcing system. The SETA should focus on building strong resource governance systems and capabilities to influence policy, innovation and transformation of the PSET ecosystem in response to rapid changes in the dynamic environment.

6.4 RECOMMENDED ACTIONS IN SUPPORT OF NATIONAL STRATEGIES

6.4.1 Supporting Economic Reconstruction, Recovery and Growth

The SSP has documented key national and sectoral priorities to support economic growth. It is recognised that skills alone cannot spur economic growth but that they are a critical enabler of growth from the level of the individual to the level of the organization, the local and global economies. As an intermediary for skills the merSETA will prioritise skills development initiatives aimed at supporting **industrialisation , localisation, SMME growth,** the **digital economy,** the **social economy,** and **transformation.**

6.4.2 Supporting skills for the changing world of work

Disruptions in the labour market as a result of changes brought by advances in manufacturing in the 4IR, and the growth of the gig economy require that South Africa re-evaluates the notion of jobs and occupations. Key priorities will include supporting skills for **entrepreneurship** in the formal economy, social economy, sharing economy and gig economy**.** Key to unlocking opportunities for learning will be exploring the use immersive learning technologies, simulated learning, and micro-credentialing to skill, upskill and reskill.

6.4.3 Supporting skills for sustainability, the green and circular economies

The 4IR and the sustainability agenda are recognised as the key drivers for all businesses both locally and globally. The mer sector has however lagged in the green economy with respect to keeping pace with its development beyond only compliance related to reduced carbon emissions, reduced waste, and water consumption. The merSETA will prioritise interventions for supporting the green and circular economy in the context of industrialisation, the social economy and transformation.

6.4.4 Exploring and supporting the role of the mer sector in the digital economy

The merSETA has for a long time been perceived as a sector that is not part of the digital economy, however this is no longer true as the sector transitions to the 4IR and embraces the green economy. Stakeholders have begun to highlight the need for digital skills across most occupational categories in almost all the sectors. Further work is required to explore the role of the digital economy in the sector. Business processes are changing in line with new technologies and online transactions. Customers are ever more discerning and demanding quick, tech enabled interfaces with respect to manufactured goods that they consume. The merSETA should thus support the transition to the digital economy.

6.4.5 Strengthening the role of the SETA as an intermediary body

SETAs as intermediary bodies are uniquely positioned to drive change in the skills development ecosystem. Various research conducted by merSETA and engagement with merSETA stakeholders have identified challenges and opportunities for improvement in the skills development value chain and system. Funding of initiatives aimed at driving the transformation or innovation in the skills development ecosystem to improve efficiencies will therefore need to be encouraged and supported. The SETA should partner with other leaders and innovators in civil society, government and HEIs to lead change in key areas such as digital transformation and other reforms. To this end the merSETA has highlighted the following actions:

- Track and influence policy – governance structures, particularly AA
- merSETA facilitating and support just transition from education to work and work to education.
- Facilitate collaboration across the PSET sector - interoperable data and technology systems to facilitate the sharing of data, information and knowledge among all role-players for improved planning and decision making.
- Endeavour to strengthen and improve outcomes and impact of partnerships – proactively seek out partners.
- Strengthen partnerships through support services to relieve administrative burden.

6.5 CONCLUSION

As reported in this SSP, the sector has not experienced significant growth, the sector was already on a downward trajectory even prior to 2020. The youth, marginalised communities and the informal sector are most vulnerable. Already in survivalist mode, these sections of the sector risk being plunged into destitution at a rapid pace. The merSETA service offering requires extra effort in terms of its design to suite all recipients of support in this new and ever-changing reality. Willing and engaged social partners are needed to assist the SETA in achieving its vision of closing the skills gap by providing relevant skills to empower workers and ensure businesses are set on a trajectory of growth. It will be challenging to develop skills for an ailing economy but it is essential that the SETAs continue to support skills interventions for occupations which are changing and have new requirements to keep pace with new technologies, production processes and sustainability.

ANNEXURE 1. REASONS FOR HTFVS BY OCCUPATION

OFO code	Occupation	Reason for Vacancy	Sum of Unfilled
2021-121901	**Corporate General Manager**	Candidates do not have the right experience	70
2021-121905	**Programme or Project Manager**	Equity considerations makes it difficult to find candidates	6
2021-122101	**Sales and Marketing Manager**	Candidates do not have the right experience	8
2021-122102	**Sales Manager**	Candidates do not have the right experience	34
		Candidates lack specific skills	11
2021-132102	**Manufacturing Operations Manager**	Candidates lack specific skills	7
2021-214101	**Industrial Engineer**	Candidates lack specific skills	12
2021-214401	**Mechanical Engineer**	Candidates do not have the right experience	17
2021-214402	**Mechanical Engineering Technologist**	Candidates lack specific skills	10
2021-215101	**Electrical Engineer**	Candidates do not have the right experience	5
		Candidates lack specific skills	7
2021-241107	**Financial Accountant**	Candidates do not have the right experience	5
2021-243101	**Advertising Specialist**	Equity considerations makes it difficult to find candidates	6
2021-243301	**Industrial Products Sales Representative**	Candidates lack specific skills	7
		Equity considerations makes it difficult to find candidates	6
2021-311401	**Electronic Engineering Technician**	Candidates lack specific qualifications	10
2021-311501	**Mechanical Engineering Technician**	Candidates lack specific skills	5
2021-311801	**Draughtsperson**	Candidates do not have the right experience	9
		Candidates lack specific qualifications	7
2021-311905	**Industrial Engineering Technician**	Candidates lack specific qualifications	6
		Candidates lack specific skills	32
2021-312201	**Production / Operations Supervisor (Manufacturing)**	Candidates do not have the right experience	5
2021-313110	**Wind Turbine Service Technician**	Candidates do not have the right experience	47
2021-313916	**Manufacturing Production Technicians**	Candidates lack specific skills	5
2021-325705	**Safety Inspector**	Candidates lack specific skills	9
2021-431102	**Cost Clerk**	Candidates do not have the right experience	28
2021-432101	**Stock Clerk / Officer**	Candidates do not have the right experience	6
2021-522302	**Motorised Vehicle or Caravan Salesperson**	Candidates do not have the right experience	203
2021-522303	**Automotive Parts Salesperson**	Candidates do not have the right experience	43
		Candidates lack specific skills	15
2021-524903	**Sales Clerk / Officer**	Candidates lack specific skills	5
2021-541401	**Security Officer**	Candidates lack specific qualifications	6
2021-642701	**Air-conditioning and Refrigeration Mechanic**	Candidates lack specific qualifications	11

OFO code	Occupation	Reason for Vacancy	Sum of Unfilled
		Candidates lack specific skills	9
2021-642702	**Refrigeration Mechanic**	Candidates lack specific skills	5
2021-643202	**Vehicle Painter**	Candidates lack specific qualifications	21
		Candidates lack specific skills	15
2021-651101	**Moulder**	Candidates lack specific skills	10
		Equity considerations makes it difficult to find candidates	10
2021-651202	**Welder**	Candidates lack specific skills	14
2021-651302	**Boiler Maker**	Candidates do not have the right experience	7
		Candidates lack specific skills	10
2021-651401	**Metal Fabricator**	Candidates lack specific skills	9
2021-651403	**Steel Fixer**	Candidates lack specific skills	5
2021-652201	**Toolmaker**	Candidates do not have the right experience	11
		Candidates lack specific skills	8
2021-652301	**Metal Machinist**	Candidates do not have the right experience	5
		Candidates lack specific skills	28
		Poor remuneration	8
2021-652302	**Fitter and Turner**	Candidates lack specific skills	28
2021-652404	**Grinder**	Candidates lack specific skills	5
2021-653101	**Automotive Motor Mechanic**	Candidates do not have the right experience	170
		Candidates do not have the right personal characteristics/attitudes	5
		Candidates lack specific qualifications	28
		Candidates lack specific skills	59
2021-653303	**Mechanical Fitter**	Candidates do not have the right experience	7
2021-653306	**Diesel Mechanic**	Candidates do not have the right experience	18
		Candidates lack specific qualifications	6
		Candidates lack specific skills	14
2021-653309	**Forklift Mechanic**	Candidates lack specific qualifications	8
2021-671101	**Electrician**	Candidates do not have the right experience	8
		Candidates lack specific skills	7
2021-671202	**Millwright**	Candidates do not have the right experience	17
		Candidates lack specific qualifications	5
		Candidates lack specific skills	17
2021-671208	**Transportation Electrician**	Candidates lack specific qualifications	5
2021-681104	**Fishmonger**	Candidates lack specific skills	6
2021-684904	**Panelbeater**	Candidates lack specific qualifications	24
		Candidates lack specific skills	8
2021-711201	**Mineral Processing Plant Operator**	Candidates lack specific skills	5
2021-714204	**Plastics Production Machine Operator (General)**	Candidates lack specific skills	13
2021-714208	**Plastics Manufacturing Machine Minder**	Candidates lack specific skills	11
2021-718201	**Boiler or Engine Operator**	Candidates do not have the right experience	8

OFO code	Occupation	Reason for Vacancy	Sum of Unfilled
2021-718304	**Packaging Manufacturing Machine Minder**	Candidates lack specific qualifications	10
2021-718905	**Engineering Production Systems Worker**	Candidates do not have the right experience	7
2021-832910	**Component Fitter**	Candidates lack specific skills	5
2021-862919	**Mechanic Trade Assistant**	Candidates do not have the right experience	6
Grand Total			**1348**

ANNEXURE 2. SECTORAL PRIORITY OCCUPATIONS (FULL LIST)

No	OFO	Occupation
1	2021-132102	Manufacturing Operations Manager
2	2021-652302	Fitter and Turner
3	2021-214101	Industrial Engineer
4	2021-214401	Mechanical Engineer
5	2021-311501	Mechanical Engineering Technician
6	2021-121908	Quality Systems Manager
7	2021-718905	Engineering Production Systems Worker
8	2021-215101	Electrical Engineer
9	2021-411101	General Clerk
10	2021-214103	Production Engineer
11	2021-311905	Industrial Engineering Technician
12	2021-313901	Integrated Manufacturing Line Process Control Technician
13	2021-712101	Metal Processing Plant Operator
14	2021-312201	Production / Operations Supervisor (Manufacturing)
15	2021-721901	Product Assembler
16	2021-832902	Plastics, Composites and Rubber Factory Worker
17	2021-714204	Plastics Production Machine Operator (General)
18	2021-652301	Metal Machinist
19	2021-653101	Automotive Motor Mechanic
20	2021-651202	Welder
21	2021-432201	Production Coordinator
22	2021-522302	Motorised Vehicle or Caravan Salesperson
23	2021-122102	Sales Manager
24	2021-684305	Quality Controller (Manufacturing)
25	2021-653303	Mechanical Fitter
26	2021-121101	Finance Manager
27	2021-432101	Stock Clerk / Officer
28	2021-671101	Electrician
29	2021-522303	Automotive Parts Salesperson
30	2021-734402	Forklift Driver
31	2021-651302	Boiler Maker
32	2021-862919	Mechanic Trade Assistant
33	2021-431101	Accounts Clerk

34	2021-714101	Rubber Production Machine Operator
35	2021-243301	Industrial Products Sales Representative
36	2021-653306	Diesel Mechanic
37	2021-432102	Dispatching and Receiving Clerk / Officer
38	2021-524903	Sales Clerk / Officer
39	2021-121901	Corporate General Manager
40	2021-522301	Sales Assistant (General)
41	2021-671202	Millwright
42	2021-214104	Production Engineering Technologist
43	2021-712201	Electroplater
44	2021-331201	Credit or Loans Officer
45	2021-652201	Toolmaker
46	2021-311801	Draughtsperson
47	2021-226302	Safety, Health, Environment and Quality (SHE&Q) Practitioner
48	2021-684904	Panelbeater
49	2021-643202	Vehicle Painter
50	2021-332302	Purchasing Officer
51	2021-651401	Metal Fabricator
52	2021-122101	Sales and Marketing Manager
53	2021-132401	Supply and Distribution Manager
54	2021-431102	Cost Clerk
55	2021-714208	Plastics Manufacturing Machine Minder
56	2021-332201	Commercial Sales Representative
57	2021-243103	Marketing Practitioner
58	2021-652404	Grinder
59	2021-642701	Air-conditioning and Refrigeration Mechanic
60	2021-311904	Manufacturing Technician
61	2021-121905	Programme or Project Manager
62	2021-311301	Electrical Engineering Technician
63	2021-132104	Engineering Manager
64	2021-714205	Reinforced Plastic and Composite Production Worker
65	2021-242303	Human Resource Advisor
66	2021-313501	Metal Manufacturing Process Control Technician
67	2021-651403	Steel Fixer
68	2021-643201	Industrial Spraypainter
69	2021-671208	Transportation Electrician
70	2021-333903	Sales Representative (Business Services)
71	2021-325705	Safety Inspector
72	2021-642702	Refrigeration Mechanic
73	2021-672105	Instrument Mechanician
74	2021-653307	Heavy Equipment Mechanic
75	2021-332301	Retail Buyer
76	2021-714202	Plastic Compounding and Reclamation Machine Operator
77	2021-132402	Logistics Manager
78	2021-413201	Data Entry Operator
79	2021-311401	Electronic Engineering Technician

80	2021-132301	Construction Project Manager
81	2021-351302	Geographic Information Systems Technicians
82	2021-671204	Lift Mechanic
83	2021-214402	Mechanical Engineering Technologist
84	2021-313916	Manufacturing Production Technicians
85	2021-311201	Civil Engineering Technician
86	2021-132107	Quality Manager
87	2021-242101	Management Consultant
88	2021-242402	Occupational Instructor
89	2021-252301	Computer Network and Systems Engineer
90	2021-252201	Systems Administrator
91	2021-241102	Management Accountant
92	2021-314201	Agricultural Technician
93	2021-311702	Metallurgical or Materials Technician
94	2021-653301	Industrial Machinery Mechanic
95	2021-652204	Patternmaker
96	2021-122103	Director of Marketing
97	2021-251101	ICT Systems Analyst
98	2021-333905	Supply Chain Practitioner
99	2021-214102	Industrial Engineering Technologist
100	2021-214201	Civil Engineer
101	2021-653310	Lubrication Equipment Mechanic
102	2021-251201	Software Developer
103	2021-671203	Mechatronics Technician
104	2021-682303	Wood Machinist
105	2021-251202	Programmer Analyst
106	2021-143901	Facilities Manager
107	2021-251102	Data Scientist
108	2021-122301	Research and Development Manager
109	2021-215102	Electrical Engineering Technologist
110	2021-641502	Carpenter
111	2021-214904	Quantity Surveyor
112	2021-682301	Furniture Finisher
113	2021-351301	Computer Network Technician
114	2021-214605	Metallurgist
115	2021-524901	Materials Recycler
116	2021-252101	Database Designer and Administrator
117	2021-652205	Master Toolmaker
118	2021-251203	Developer Programmer
119	2021-351201	ICT Communications Assistant
120	2021-313110	Wind Turbine Service Technician
121	2021-133102	ICT Project Manager
122	2021-683401	Upholsterer
123	2021-671206	Electrical Equipment Mechanic
124	2021-214501	Chemical Engineer
125	2021-133103	Data Management Manager

126	2021-214202	Civil Engineering Technologist
127	2021-143905	Call or Contact Centre Manager
128	2021-251401	Applications Programmer
129	2021-313202	Waste Materials Plant Operator
130	2021-214604	Metallurgical Engineering Technologist
131	2021-214908	Materials Engineering Technologist
132	2021-214907	Materials Engineer
133	2021-715501	Leather Processing Machine Operator
134	2021-252901	ICT Security Specialist
135	2021-642602	Solar Installer
136	2021-714209	Reinforced Plastics and Composite Trades Worker
137	2021-251901	Computers Quality Assurance Analyst
138	2021-216101	Architect
139	2021-313907	Food and Beverage Manufacturing Process Controller
140	2021-131101	Agricultural Farm Manager
141	2021-251302	Web Developer
142	2021-211403	Materials Scientist
143	2021-683202	Apparel and related pattern maker
144	2021-331502	Insurance Investigator
145	2021-682201	Cabinet Maker
146	2021-214105	Energy Efficiency Manager
147	2021-212101	Actuary
148	2021-313109	Solar Photovoltaic Service Technician

ANNEXURE 3. MERSETA PARTNERSHIPS AND SCOPE

Type	Institutions	Scope category	Start Date	End Date	Addendum
Various	Projects	Adult Education	20-Mar-19	31-Mar-24	
Private Training Provider	Alan Forsyth	Qualification/curriculum development	13-Dec-19	30-Sep-24	
HEI	Cape Peninsula University	Internships, Workplace Learning & Experience		30-Sep-24	
HEI	Cape Peninsula University	Internships, Workplace Learning & Experience	12-Aug-14	Month to month	Month to Month
HEI	Cape Peninsula University	Internships, Workplace Learning & Experience	24-Jul-13	Month to month	Month to Month
HEI	Cape Peninsula University	Internships, Workplace Learning & Experience		Month to month	Month to Month
HEI	Cape Peninsula University	Internships, Workplace Learning & Experience	18-Dec-15	Month to month	Month to Month
HEI	Central University of Technology	Internships, Workplace Learning & Experience	27-Jun-17	Month to month	Month to month
HEI	Central University of Technology	Internships, Workplace Learning & Experience	04-Jun-18	31-Mar-19	31-Oct-22

HEI	Central University of Technology	Bursaries	21-Jun-18	31-Mar-19	31-Oct-22
Various	Projects	Supporting CoS	20-May-19	30-Sep-23	
Various	Projects	Supporting CoS	25-Mar-19	30-Sep-23	
International	Chinese Culture and International Education Exchange Centre	Internships, Workplace Learning & Experience	20-Mar-19	30-Sep-23	
International	Chinese Culture and International Education Exchange Centre	Internships, Workplace Learning & Experience	14-Jan-16	31-Oct-21	31-Oct-23
Private Training Provider	Chrio Jirah Academy	Qualification/curriculum development	29-Mar-19	30-Sep-23	
TVET College	College of Cape Town	Industry related skills development	25-Mar-19	30-Sep-23	
National Government	Cooperative Governance and Traditional Affairs	Community based skills development	16-Mar-15	30-Nov-20	30-Sep-23
Curriculum development	Customised Business Advisory Solutions	Qualification/curriculum development	17-Nov-20	01-Oct-23	
Provincial Government	Department of Correctional Services	Provide access to skills development opportunities in line with national and sectoral priorities	30-May-21	30-Sep-25	
National Government	Department of Agriculture, Land Reform and Rural Development	Community based skills development	29-Mar-16	31-Mar-18	30-Sep-23
National Government	Department of Basic Education	Apprenticeship Support	14-Mar-17	31-Mar-20	30-Sep-23
National Government	Department of Basic Education	Artisan training	15-Mar-21	30-Sep-24	
National Government	Department of Basic Education	Apprenticeship Support	27-Mar-19	30-Sep-23	
National Government	Department of Basic Education	Provide access to skills development opportunities in line with national and sectoral priorities	19-Mar-19	30-Sep-23	
National Government	Department of Economic Development and Tourism	Green Economy	30-Mar-19	30-Sep-23	
HEI	Durban University of Technology	Internships, Workplace Learning & Experience	03-Jun-19	28-Feb-22	30-Apr-23
HEI	Durban University of Technology	Internships, Workplace Learning & Experience	21-Jan-19	31-Mar-22	31-Mar-23
TVET College	East cape Midlands TVET College	Provide access to skills development opportunities in line with national and sectoral priorities	01-Feb-19	31-Mar-22	2024/03/31
TVET College	East cape Midlands TVET College	Industry 4.0	27-Mar-19	31-Mar-22	30-Jun-23

Provincial Government	EC Office of the Premier	Internships, Workplace Learning & Experience	02-Aug-19	31-Dec-22	30-Jun-23
Provincial Government	EC Office of the Premier	Provide access to skills development opportunities in line with national and sectoral priorities	30-Sep-19	31-Dec-22	30-Jun-23
TVET College	Ekurhuleni West TVET College	Provide access to skills development opportunities in line with national and sectoral priorities	25-Sep-19	31-Dec-22	30-Jun-23
Curriculum development	Elsiemot and Associates	Qualification/curriculum development	28-Oct-19	31-Dec-22	30-Jun-23
Various	Enterprise Development Social Project	Enterprise Development	25-Oct-19	31-Dec-22	30-Jun-23
Various	Enterprise Development Social Project	Enterprise Development	19-Nov-19	31-Dec-22	30-Jun-23
Private Training Provider	EON Knowledge Metaverse	Industry 4.0	16-Nov-16	31-Mar-23	31-Mar-23
TVET College	False Bay College	Provide access to skills development opportunities in line with national and sectoral priorities	31-Oct-18	31-Mar-21	31-Mar-24
TVET College	False Bay College	Industry 4.0	30-Nov-18	31-Mar-22	31-Mar-24
Community College	FS Community Education & Training College	Community based skills development	20-May-20	31-Mar-24	
Provincial Government	Free State Department of Education	Provide access to skills development opportunities in line with national and sectoral priorities	22-Nov-18	31-Mar-24	31-Mar-24
Provincial Government	Gauteng Department of Education	Apprenticeship Support	28-Sep-18	31-Mar-22	31-Mar-23
Provincial Government	Gauteng Department of Education	Apprenticeship Support	27-Jun-18	31-Mar-21	31-Oct-23
Provincial Government	Gauteng Department of Education	Apprenticeship Support	21-Dec-18	31-Mar-21	31-Oct-23
NPO	Ikusasa Student Financial Aid Programme	Bursaries	22-Mar-19	31-Mar-23	31-Dec-24
NPO	Ikusasa Student Financial Aid Programme	Bursaries	22-Mar-19	31-Mar-22	30-Jun-24
Provincial Government	KZN Office of the Premier	Artisan training	28-Mar-19	31-Mar-20	31-Oct-23
Community College	KZN Community Education &I42 Training College	Community based skills development	29-Mar-19	31-Mar-22	31-Oct-23
HEI	Mangosutho University of Technology	Internships, Workplace Learning & Experience	31-Mar-20	31-Mar-23	30-Oct-24
HEI	Mangosutho University of Technology	Internships, Workplace Learning & Experience	22-Jun-20	31-Mar-24	

HEI	Mangosutho University of Technology	Internships, Workplace Learning & Experience	24-Jul-20	31-Dec-23	
TVET College	Motheo TVET College	NCV learners	30-Nov-20	31-Mar-23	31-Dec-23
Provincial Governm ent	MP Department of Education	Bursaries	09-Dec-20	31-Mar-23	31-Dec-23
Provincial Governm ent	MP Department of Education	Artisan training	17-Nov-20	30-Sep-23	
Employer Body	National Association of Automotive Component and Allied Manufacturers (NAACAM)	Industry related skills development	30-Oct-20	30-Sep-24	
National Governm ent	National Department of Public Works	Artisan training	23-Mar-21	31-Mar-23	
HEI	Nelson Mandela University	Industry 4.0	23-Mar-21	31-Mar-24	
HEI	Nelson Mandela University	Provide access to skills development opportunities in line with national and sectoral priorities	11-Mar-21	30-Sep-23	
HEI	Nelson Mandela University	Lecturer Development	04-Feb-20	31-Mar-24	
HEI	Nelson Mandela University	Bursaries	09-Dec-20	12-Mar-21	30-Sep-23
Communit y College	NC Community Education & Training College	Community based skills development	31-Mar-21	31-Mar-24	
HEI	North West University	Provide access to skills development opportunities in line with national and sectoral priorities	06-May-21	31-Mar-24	
NPO	NSFAS	Bursaries	14-Jul-21	31-Mar-25	
Trade Union	NUMSA	Provide access to skills development opportunities in line with national and sectoral priorities	26-Oct-21	30-Sep-23	
Trade Union	NUMSA	Bursaries	17-Feb-22	30-Sep-26	
Provincial Governm ent	EC Office of the Premier	Provide access to skills development opportunities in line with national and sectoral priorities	17-Feb-22	30-Sep-26	
Provincial Governm ent	FS Office of the Premier	Provide access to skills development opportunities in line with national and sectoral priorities	16-Mar-22	30-Sep-26	
Provincial Governm ent	NW Office of the Premier	Artisan training	19-Jan-22	30-Sep-26	
Provincial Governm ent	NC Office of the Premier	Provide access to skills development opportunities in line with national and sectoral priorities	31-Mar-22	31-Oct-24	
Provincial Governm ent	EC Office of the Premier	Provide access to skills development opportunities in line with national and sectoral priorities	30-Mar-22	31-Oct-24	

Provincial Governm ent	FS Office of the Premier	Artisan training	21-Jan-22	30-Sep-26	
Provincial Governm ent	FS Office of the Premier	Artisan training	30-Mar-22	31-Oct-26	
Provincial Governm ent	FS Office of the Premier	Artisan training	31-Mar-22	30-Sep-26	
Various	Projects	Provide access to skills development opportunities in line with national and sectoral priorities	27-Sep-22	31-Mar-25	
Research Provider	RedFlank Solutions	Evaluation study: Learner Contracts Termination	31-Oct-22	31-Dec-25	
Research Provider	RedFlank Solutions	Evaluation Study: Financial and non-financial support	30-Jan-23	31-Oct-24	
Research Provider	RedFlank Solutions	Evaluation Study: Lecture Development Study	31-Mar-23	30-Jun-24	
Employer Body	Retail Motor Industry Organisation (RMI)	Enterprise Development	17-Mar-23	30-Sep-27	
Employer Body	Retail Motor Industry Organisation (RMI)	Provide access to skills development opportunities in line with national and sectoral priorities	31-Mar-23	31-Mar-26	
HEI	Rhodes University	Bursaries	14-Feb-23	31-Mar-26	
Provincial Governm ent	Saldanha Bay IDZ	Artisan training	01-Mar-23	30-Sep-27	
Governm ent Entity	Council for Scientific and Industrial Research (CSIR)	Research	31-Mar-23	31-Oct-26	
Governm ent Entity	Council for Scientific and Industrial Research (CSIR)	Industry 4.0	31-Mar-23	31-Mar-27	
TVET College	Tshwane North TVET College	TVET Quality Prog Skills	01-Dec-15	31-Mar-23	
HEI	Tshwane University of Technology	Chair on Intelligent Man (TUT)	Various	30-Sep-23	
HEI	Tshwane University of Technology	Skills Development in Domestic Appliances (TUT)	Various	Various	
TVET College	Projects	Artisan training	Various	31-Mar-21	30 Sep-23
Various	Projects	TVET Support	Various	30-Sep-22	30-Sep-23
HEI	University of Cape Town	Artisan training	Various	30-Sep-23	
HEI	University of Cape Town	Research	Various	30-Sep-24	
HEI	University of Cape Town	Lecturer Development	Various	30-Sep-25	
HEI	University of Cape Town	Provide access to skills development opportunities in line with national and sectoral priorities	23-Jun-21	Various	
HEI	University of Johannesburg	Provide access to skills development opportunities	Various	30-Sep-27	

		in line with national and sectoral priorities			
HEI	University of the Free State	Industry 4.0	Various	30-Sep-21	30-Sep-23
HEI	University of the Free State	Industry 4.0	Various	Various	30-Sep-22
HEI	University of the Western Cape	UWC Professional TVET Lecturer	Various	Various	
HEI	University of the Western Cape	Industry 4.0	11-Mar-15	Various	
HEI	University of the Witwatersrand	Research	31-Mar-22	30-Sep-26	
HEI	University of Venda	Innovation, research & development	Various	30-Sep-27	
Research Provider	Urban Econ Development Economists	Research	29-Mar-16	Various	
HEI	Vaal University of Technology	Candidacy	Various	30-Sep-24	
TVET College	Vuselela TVET College	TVET Quality Prog Skills	Various	30-Sep-23	
HEI	Walter Sisulu University	Regional Structural Transformation	Various	30-Sep-25	
HEI	Walter Sisulu University	Provide access to skills development opportunities in line with national and sectoral priorities	Various	30-Sep-23	
TVET College	West Coast College	TVET Quality Prog Skills	03-Mar-21	Various	
Community College	WC Community Education & Training College	Community based skills development	Various	30-Sep-24	
Provincial Government	WC Department of Economic Development	Artisan training	Various	31-Mar-24	
Trade Union	Projects	Provide access to skills development opportunities in line with national and sectoral priorities	Various	30-Sep-26	
Government Entity	World Skills South Africa	World skills	Various	30-Sep-27	