merSETA
MANUFACTURING, ENGINEERING AND RELATED SERVICES SETA

Final

SECTOR SKILLS PLAN

2023/ 2024

1 August 2022

OFFICIAL SIGN OFF

Submission of required Sector Skills Plan (SSP) Documents as per DHET Guidelines for SSP 2023/2024

It is hereby certified that this Draft 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, Final SSP and Skills Priority Occupations which was developed in accordance with the SSP Framework produced by DHET.

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COVER LETTER

01 August 2022

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 and Skills Priority Occupations 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 2023/2024.

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

SSP Context

This SSP Update 2023/24 is submitted in a precarious time both globally and locally. Recent events impacting on the world includes massive economic turmoil, political and civil unrest and conflict in the Ukraine causing disruption to global value chains and increased fuel prices as well as high inflation. Locally, the South African economy has felt the brunt of rising fuel costs, the energy crisis, a stagnant economy and the volatility of our currency. We have not escaped the effects of global warming with flooding in KZN also impacting on the mer sector. The recent context has compounded the effects of COVID-19 on the business sector. Despite these negative events, the SA government has put in place its reimagined industrial strategy comprising sectoral master plans and the ERRP.

The complexities of our time require a skills response that will serve the industry and labour market in the short and medium term while also being cognisant of the requirements of a longer-term outlook.

The SSP is positioned such that it expands on the themes presented in the 2022/2023 update and re-establishes the merSETA's commitment to closing the skills gap by aligning to both national and industrial skills demands. The merSETA priority skills actions continue to be relevant with the aim of supporting the skills for economic development. The SSP has highlighted the 5IR (Fifth Industrial Revolution) and the need to empower individuals to navigate a precarious labour market with an emphasis on skills for new technologies and well as autonomy and empowerment in building up a marketable skills portfolio.

Structural transformation and the burgeoning inequalities due to a lack of access to tools and information has been brought to the fore. Vulnerable citizens require a skills system that is agile and responsive to immediate needs. Keen attention must be paid to empowering women, the poor and the youth who are not in a position to pursue skills that will offer them a living wage in the current climate. The merSETA has again raised the requirement for micro-credentialling and provision of top up training and short courses to support the needs of workers and new labour market entrants.

Updates and New Information:

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 and information from primary research studies and data reports developed internally, these are documented in the research process methods section of the SSP.
- Data from secondary sources such as Statistics South Africa, the Higher Education Management Information System (HEMIS) and industry associations including the National Association of Automobile Manufacturers of South Africa (NAAMSA), MIBCO, SEIFSA, Plastics SA TIPS, the DPRU and others have been included.
- Research reports from national research institutions, government institutions, higher education institutions, industry publications and the media has also been utilised.

The SSP was workshopped with the merSETA Chambers, Governance & Strategy Committee and the Accounting Authority on 9 June 2022 and throughout June and July for consensus on the SSP and Priority Skills List. The SSP has been approved by the Accounting Authority for submission to the DHET on 1 August 2022. Feedback from the DHET as wells as the AA and Chamber Committees has been incorporated in the final SSP.

Kind regards

Wayne Adams
01/08/2022 11:40:02(UTC+02:00)

Mr Wayne Adams
Chief Executive Officer: merSETA

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Ms Kate Moloto
Chairperson of the merSETA Accounting Authority

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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 /

Acronym	Meaning	Acronym	Meaning
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
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

EXECUTIVE SUMMARY

This Draft SSP Update 2023/24 was written at time where the labour market continues to be impacted by disruptive events taking place both globally and locally. These events range from volatility of the global economy, political and civil unrest and war in the Ukraine causing disruption to global value chains, increased fuel prices and rising inflation. This can be exemplified by the incessant hike of fuels prices experienced in South African which poses a huge threat to the economy and the livelihood of the citizen in terms of affordability. The South African economy suffered due to both local and international factors. The local economy has taken strain from looting and civil unrest events in the KZN and Gauteng provinces and the recent KZN flooding which gravely affected the Toyota manufacturing plant in Durban and caused them to reconsider relocating to other countries due to weather uncertainty – the impact on the mer sector in this regard is yet to be seen.

Nevertheless, the merSETA continues to align itself to the national imperative of stimulation South African economic growth and improve employability through facilitating relevant skills development. The SSP highlights that the economy overall has not demonstrated strong indications of growth and is therefore unlikely to produce jobs to substantially alleviate 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. The personal services, trade, manufacturing, and agriculture sectors has shown resilience to the negative events affecting the economy and have contributed 1.2% GDP growth in the fourth quarter of year 2021.

The profile of the sector indicates more economic participation of small and medium enterprises while the number of large enterprises is seemingly slowly contracting in number. Large enterprises also appear to employ a smaller proportion of the workforce than it did in the past. Large employers accounted for over 75% of workers in the past and in the current WSP data they account for 66% of workers. The labour market is also now flooded with skilled and semi-skilled retrenched/out of work workers as well as skilled newly qualified graduates all competing for the few vacancies available. This is coupled with global trends to remain competitive in terms of new technologies, transitioning to 5IR, the green economy and new business models, requires careful deliberation in terms of skills planning. As such the merSETA has refined its skills priority actions and will endeavor to implement effective interventions and projects to support the sector during these times.

The merSETA SSP raises the importance of re-assessing the complexity of the South African economy to better fulfil the mandate of skills development and align skills to the economic requirements. The social economy proves to be ever more important with respect job creation and the rise of SMMEs as well as the notions of re-industrialization and localization. These factors are also aligned with the national ERRP and its linked skills strategy.

Skills supply and demand analysis in the merSETA plays a significant role to ensure that relevant skills development interventions are tailored in a manner that cater for the current demands in the economy. To derive such information, the merSETA used different sources of data, including WSP/ART stakeholder interviews and surveys and Statistics South Africa data. All this culminate to the development of the skills priority lists that inform the implementation of various programmes of the merSETA such as apprenticeships, learnerships, skills programs and other skills development initiatives that are relevant to the PSET system. Notwithstanding the emerging heightened demand for flexible, financially and technologically accessible skills interventions, including micro credentials and skills interventions that are not necessarily accredited, nor aligned to the NQF due to the pace of change in the mer sectors.

The merSETA continue to recognize partnerships as a strategic tool to mobilise resources and extend its accessibility to occupationally directed training for South African citizens. The merSETA partnerships play a significant role to improve understanding of the sectors and the requirements for effective skills planning. Given the current economic climate there is a recognition that the merSETA should continue to be proactive in seeking out partnerships for the benefit of its stakeholders for both immediate and longer-term interventions. These are guided by the partnership model and strategic imperatives.

Overall, while acknowledging the dynamic drivers for change in the economy and in the skills development environment, the merSETA strives to improve its role to provide quality interventions for the mer sector. In doing so, internal systems such as MIS, M&E, Quality Management Systems and Knowledge Management are positioned as crucial mechanisms to ensure so that operational and organisation performance is effectively maintained.

RESEARCH PROCESS AND METHODS

This SSP was developed at a time where the war in Ukraine has triggered different waves that affect world economies, import and export trade, commodity prices and patterns of production in 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 (StatsSA), 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.

The merSETA endeavour to be up to date with the contemporary trends that impacts skills development. Therefore in its endeavour to make informed decisions for skills planning, the merSETA conducts and commission 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:

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
Understanding Green Partnership within the manufacturing, engineering and related services sectors	Mixed Methods	To understand how the merSETA stakeholders interpret concepts related to the green economy and how the interpretation changes over time as the economy changes.	Stakeholder Workshop Online survey	merSETA Stakeholder database, training providers and Chambers. 111 Survey responses and 49 Workshop respondents	March 2019 –March 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

Topic	Method	Purpose	Data Collection	Sample Size/Data Source	Timeframe
Lived livelihoods: Education advancing entrepreneurial livelihoods.	Qualitative	Understand the way(s) in which education and training can expand sustainable livelihoods gained through entrepreneurship in manufacturing, engineering and related trades and occupations	Interviews and focus groups	40 students and graduates	May 2018 – June 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	TVET Students and desktop research	July 2018 – March 2021
Chamber SSP Workshops and COVID-19 Reports	Mixed Methods	To better understand the Skills Development needs of the Chambers and how COVID-19 has impacted the sectors.	Workshops, Interviews, Secondary data analysis	6 merSETA Chambers	15 July 2020 - November 2020.
Retrenched Workers Feasibility Study	Qualitative	Find innovative mechanisms that support retrenched workers, unemployed youth and workers with disability to access opportunities the labour market.	Stakeholder interviews and surveys	64 Interviews	July 2019 – July 2020
MerSETA Covid-19 Stakeholder Survey	Qualitative	Econometric Analysis and Interviews considering COVID-19	Online survey	274 responses	29 April 2020 – 17 July 2020
Chamber Survey	Qualitative	Chamber reports on COVID-19 to augment Chamber information with respect to economics and skills development	Focus groups across six chambers	6 Focus Groups actors Chamber committee Representatives	August 2020 – November 2020
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

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 (StatsSA), 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.

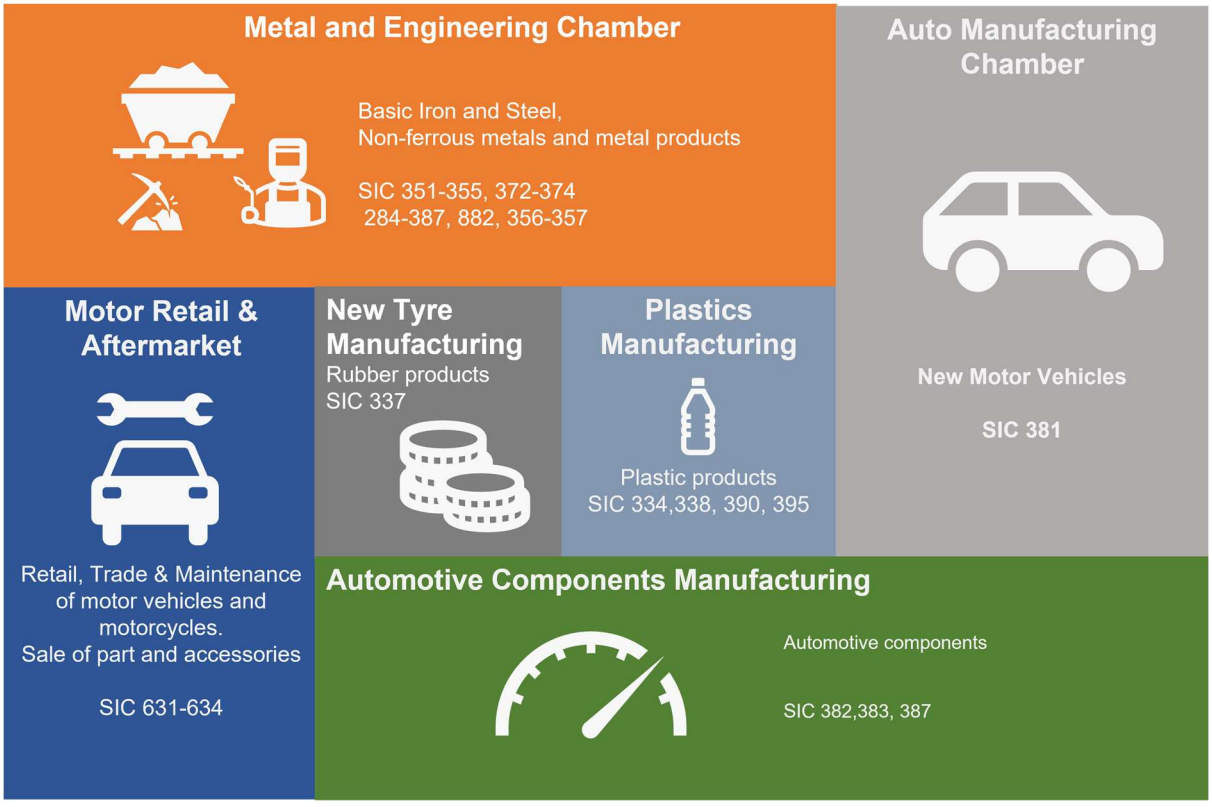


Figure 1: Scope of Coverage, Chambers and SIC codes

1.2.1 METAL & ENGINEERING CHAMBER

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.

This sector has the widest range of SIC codes under the merSETA scope of coverage. Its value chain as depicted in the figure below which includes primary and secondary activities. Primary activities are those activities directly involved in the conversion process of basic raw materials into final output/products including the receipt of basic raw materials from suppliers and marketing of output/ products to customers (ZEPARU, 2014). They are grouped into two types of activities related to product and market. Product related activities are the activities, performed

by the organization to add value to the product and services itself. Market related activities are the activities, performed by the organization to transfer the finished product or services to the customers (Acharyulu, Subbaiah, & Rao, 2015). The secondary or support activities are those activities, not directly involved in the conversion process but support the primary activities in their functions.

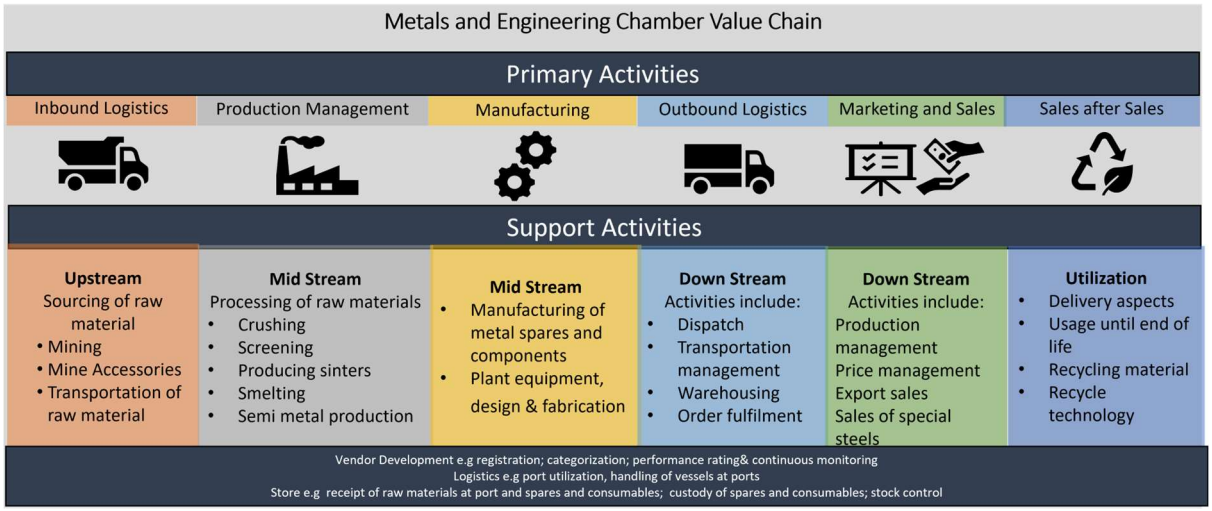


Figure 2: Metals Value Chain

1.2.2 AUTO MANUFACTURING CHAMBER

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.

Automotive manufacturing is part of a wider supply chain (see diagram below), which incorporates the extraction of raw materials to manufacture the vehicle; component manufacture (see Automotive Components Manufacturing) ; vehicle assembly, distribution, retail, aftermarket and added-value sales (see Motor Retail); and the disposal and recycling of vehicles once they have reached the end of their lifespan.). The Auto Sector has some of the largest scales of operation of all the sectors. The standard industrial classification code for this chamber is 381 and its overall value chain is presented in the figure below.

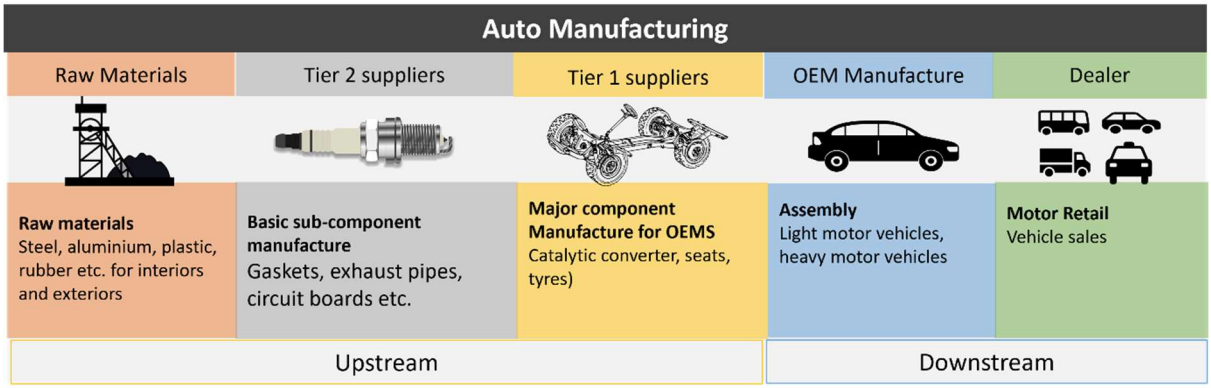


Figure 3: Auto Value Chain

1.2.3 AUTOMOTIVE COMPONENT MANUFACTURING CHAMBER

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

Most manufacturers are internationally owned, however there is a significant emphasis on increasing the number of local manufacturers. About 200 automotive component manufacturers operate in South Africa, and in combination with automotive manufacturing (assembly), the sector contributes 20% of the country's industrial sector (NAAMSA, 2021). Due to its significance, the sector is well supported by the government to encourage sector growth, mainly through exports and stabilisation of employment levels. Auto component manufacture is part of a wider supply chain (see diagram below), which incorporates the extraction of raw materials, component manufacture for vehicle assembly, distribution, the selling of vehicles (see separate section), aftermarket and added-value sales, and the disposal and recycling of vehicles once they have reached the end of their lifespan.

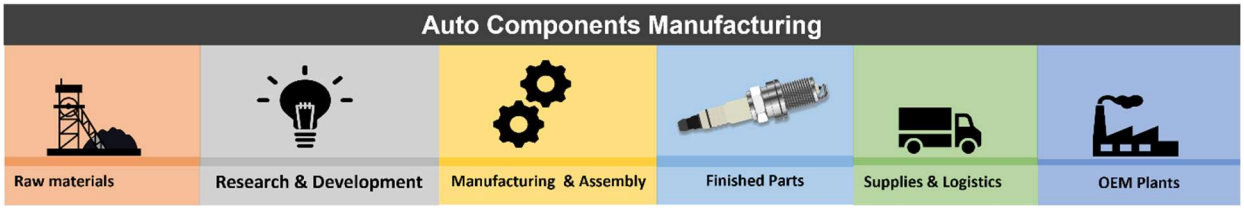


Figure 4: ACM Value Chain

1.2.4 NEW TYRE MANUFACTURING CHAMBER

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 includesGoodyear, Bridgestone, Continental Tyres and Sumitomo Rubber. Standard Industrial Classification is 337 (rubber products).

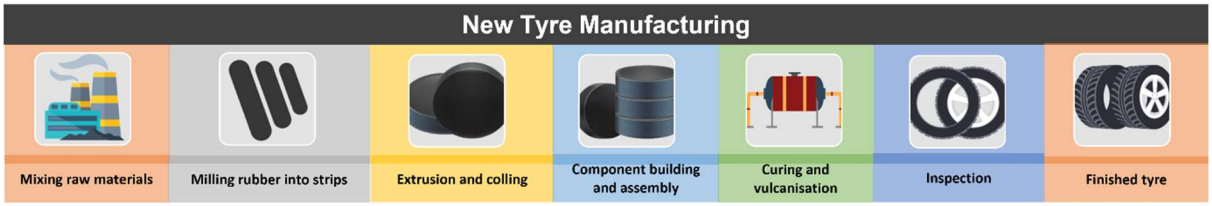


Figure 5: New Tyre Value Chain

1.2.5 MOTOR RETAIL CHAMBER

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. The Motor Retail SIC comprises fabricated metal products (SIC 359) and motor trade activities including sale of vehicles (SIC 631), vehicle maintenance and repair (SIC 632), sale of vehicle parts and accessories (SIC 633) and the sale, maintenance and repair of motorcycles, their parts and accessories (SIC 634).

Figure 6: Motor Retail Value Chain

1.2.6 PLASTICS MANUFACTURING CHAMBER

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. Examples of employers in the sector are: Mpact, Nampak, Sasol Polymers, Dunro Plastics SA and Astrapak. According to industrial classifications, the Plastics Chamber is wholly situated in the manufacturing sector, itcomprises basic chemicals and plastic products as well as furniture and recycling.

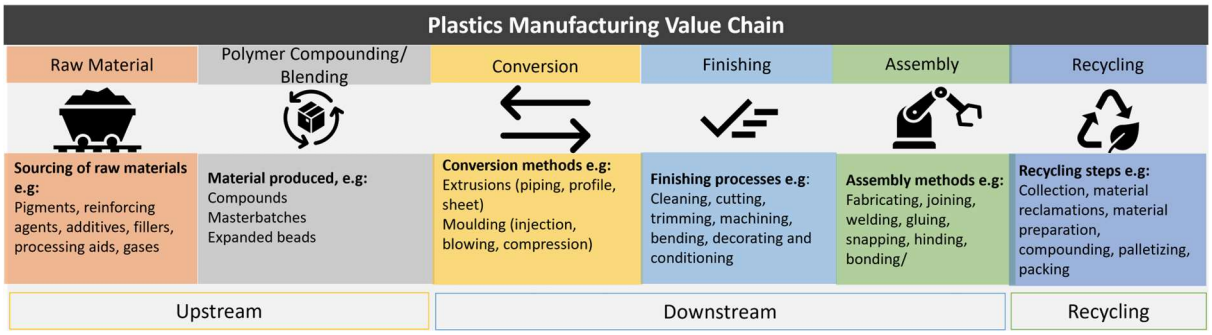


Figure 7: Plastics Value Chain

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 8: 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.

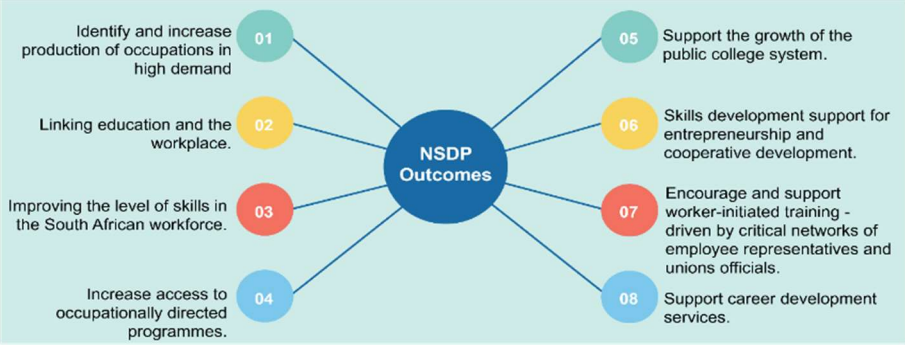


Figure 9: NSDP Outcomes

Table 1 - 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		
	Higher Education and Training Institutions	Responsible for skills provision. They are the key delivery mechanisms for a	**Outcomes 1, 2 and 3**

ORGANISATION TYPE	NAME OF ORGANISATION	ROLE	Link to NSDP outcomes
Education and Training Institutions	TVET Colleges Community Education and Training Colleges	differentiated PSET system and should be supported to provide skills to support economic growth.	The SETA partners with these institutions to implement their mandate along with industry partners.
Employer Organisations	The Steel and Engineering Industries Federation of Southern Africa (SEIFSA) 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 (PlasticsSA)	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.
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) Metal and Engineering Industries Bargaining Council (MIEBC) Motor Industry Bargaining Council (MIBCO) Bargaining Council for the New Tyre Manufacturing Industry	The Labour Relations Act provides for the self-regulation of industries through the medium of Bargaining Councils. Bargaining Councils deal with collective agreements, solve labour disputes, establish various schemes and make proposals on labour policies and laws (DoL, 2016).	**Outcomes 3 and 7** Collective bargaining to regulate the sector and remuneration of apprentices. Works in partnership with unions. Fair remuneration reduces attrition and ensures skills levels in the country.
Labour Organisations	National Union of Metalworkers South Africa (NUMSA) 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)	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.
Civil Society	Non-governmental Institutions (NGOs) Community Based Organisations (CBOs) Faith Based Organisations (FBOs)	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.

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

Gross Domestic Product

Growth in the fourth quarter of 2021 was positive, taking the annual growth rate to 4.9%. Real GDP however, has not recovered to that of the second quarter of 2021 due to the impact of the civil unrest in the third quarter (StatsSA, 2022).

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 sectors that contributed to the 1.2% GDP growth in the fourth quarter are personal services, trade, manufacturing, and agriculture (StatsSA, 2022). The rain experienced in the last quarter boosted the agricultural sector. Key trade activity increased with contributions from motor trade, tourist accommodation, and the catering industry. The growth in manufacturing emanated from petroleum production, chemical and plastic products, and food and beverages.

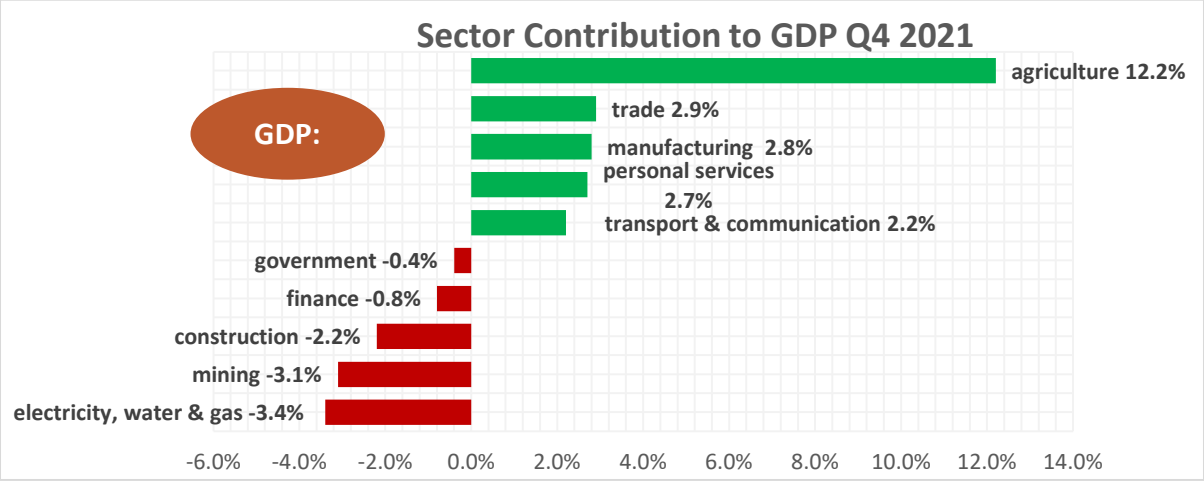


Figure 10: Sector Contribution to GDP Q4 2021

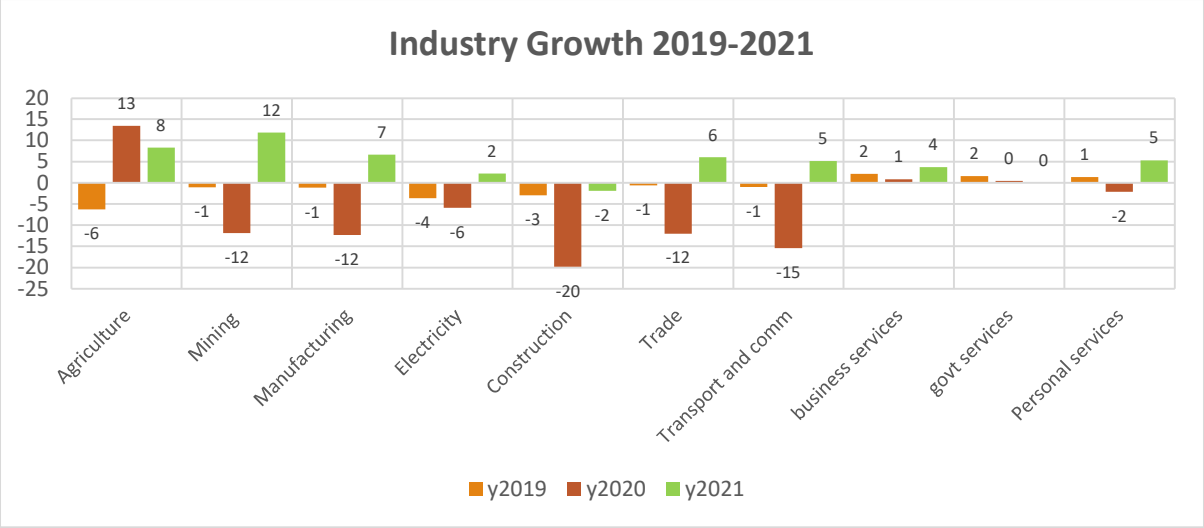


Figure 11: Industry Growth 2019-2021

The graphic above shows that despite the downturn in the economy due to COVID-19 and the lockdown, the economy has rebounded in terms of year-on-year growth, however the graphic below demonstrates that across the sectors, the economy has not met or exceeded GDP levels experienced in 2019. Only agriculture, government service and business and personal services have remained constant with growth witnessed in the agricultural, business and personal service sectors.

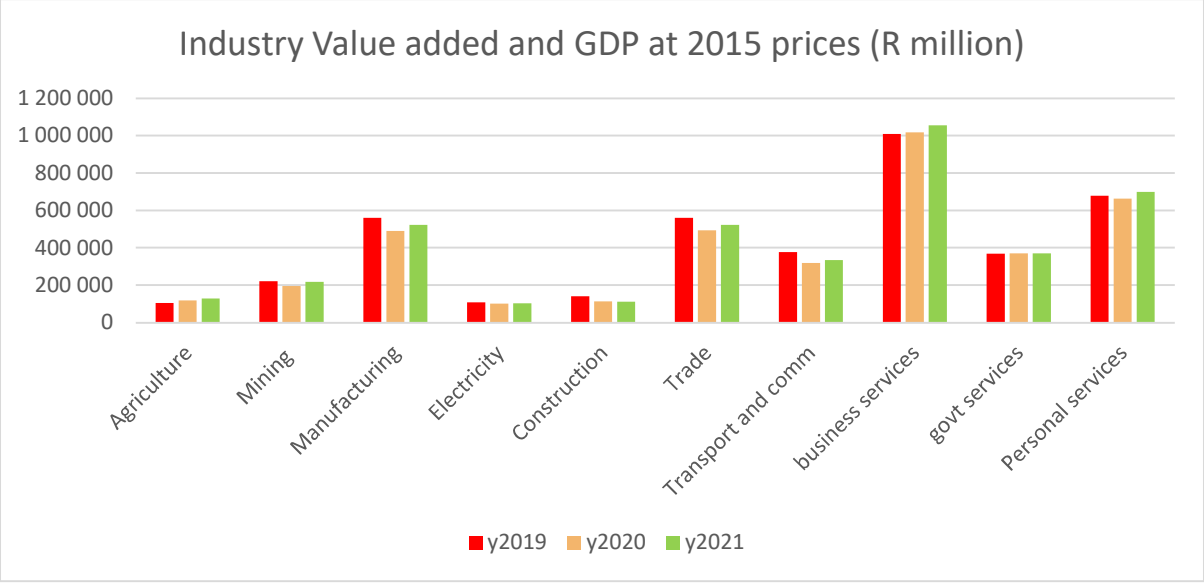


Figure 12: Industry Value Added at 2015 prices

Imports and Exports

Exports increased by 8.9% due to the demand for gold, platinum and diamonds, base metals, motor vehicles, parts, and accessories in the fourth quarter of 2021, adding 2.1 percentage points to growth in expenditure on GDP. Even though imports did not add to GDP growth (-2.2%) in the fourth quarter – there was an increase in imports (8.5%) in the quarter due to the demand for machinery & equipment, base metals, motor vehicles, parts, and accessories (StatsSA, 2022). Household consumption also increased by 2.8% adding 1.8% expenditure on GDP.

1.4.1 Metals & Engineering

As the year began in January 2022, the metals and engineering sector outlook looked positive. In December 2021, South Africa ranked 32nd out of 64 steel producing countries. Steel production ad grown by 29,5% in 2021 taking production to 5 million tonnes of crude steel. It was reported that in December 2021, production levels had recovered to pre-COVID levels (Engineering News, 2022). The positive outlook was attributed to a 14% increase in electrical products and 11% increase in iron and steel. Taking into consideration the entire sector (inclusive of rubber products and automotive components), the sector grew 1,2% in January 2022. Policy developments to improve the conditions of business operation in South Africa includes the Steel Master Plan. Couples with this policy, the automotive sector will also see increased investments in the production of components – resulting in growth potential for the stainless-steel sector. It is imperative to increase confidence in the sector outlook through efforts to reduce corruption and ensure implementation of the reimagined industrial plan which incorporates reconstruction and recovery efforts by the South African Government.

The positive outlook however is hampered by the conflict between Russia and the Ukraine, this conflict has had negative consequences in terms of inflation on food and commodities, particularly the increased price of fuel (Engineering News, 2022). In addition, loadshedding and energy constraints may further negatively impact the sector. On the back of the conflict in the Ukraine, global steel production could fall by as much as 1% according to Accelor Mittal CEO, Aditya Mittal.

1.4.2 AUTOMOTIVE SECTOR

The automotive sector on its own contributes 4,9% to the GDP derived from manufacturing and retail. Furthermore the sector accounts for 26,7% of the South African manufacturing output, accounting for almost 16% of exports (NAAMSA, 2022[1]).

According to NAAMSA, the automotive sector slowed in the fourth quarter of 2021.[2] For new vehicle sales, the increase in sales was only 0,8%, much lower than the 3,5% experienced in the fourth quarter pf 2020. Vehicle production was also slowed, reflecting a decline of 16,5% compared to the production in the same quarter of 2020. Vehicle exports also decline by 21,3% (NAAMSA, 2022). These results came on the back of several domestic disruptions including the civil unrest in July 2021, cyberattack on Transnet, a three week strike in the metals sector as well as lockdown restrictions. The conflict between Russia and Ukraine may also hamper global supply chains due to the strategics position of Europe in the auto ecosystem[3].

The depressed outlook was however short lived as new vehicle sales and exports rose in February 2022 indicating some traction in terms of sector recovery. In February 2022, new car sales rose by 18,4% and exports rose by 12,3%. In addition, the sale of electric and hybrid vehicles increased substantially in January 2022 (the sector sold 216 vehicles in January 2022 compared to 34 sold in January 2021)[3]. These trends bode well for the manufacturing sector. Despite the flooding in KZN in April 2022, the sectors sales remained robust. Again, in April 2022, the sector saw increases in production, sales, and exports.

1.4.3 Plastics Sector

The plastics sector accounted for around 60 000 jobs and exported converted 1.8million tons of polymer into products in 2018, furthermore the sector has multiplier potential of 3.7% for each job created and 3.5% for each rand invested.[4] 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. Based on the local and international

[1] https://naamsa.net/wp-content/uploads/2022/05/20220503-naamsa-Media-Release-April-2022-sales.pdf
[2] https://naamsa.net/wp-content/uploads/2022/02/20220215-naamsa-4th-Quarter-Business-Review-2021.pdf
[3] https://www.dailymaverick.co.za/article/2022-03-01-south-african-motor-industry-shifts-gears-new-car-sales-and-exports-rise-in-february/
[4] https://sapt.co.za/plastics-industry-defined-as-a-priority-sector-by-govt/

research completed for the South African Plastics Industry Master plan, six pillars have been identified as key focus areas to be actioned through to 2035 (Draft Master Plan for Plastics Industry, 2020).

The sector has however been impacted negatively under the depressed economic outlook of the past decade and even through the sector has been earmarked as a priority sector, significant support and expedience in terms of investments and political will is required to boost the economic trajectory of the plastics industry. Chief Executive of Plastics SA states that, "The negative impacts of a national economy that has not grown at any meaningful rate for over a decade, losses suffered as a result of the industrial action taken by striking workers, a weakening Rand-Dollar exchange rate, competing against cheap imports; high electricity costs and unreliable supply have forced many of our manufacturers and recyclers to lose the fight for survival. Some companies have had to dramatically scale down operations, while others have had to close their doors permanently."

1.4.4 The Informal, Social and Township Economy

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 (StatsSA, 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.

1.5 EMPLOYER PROFILE

WSP data collected in the 2022 mandatory grant window yielded responses from 4705 companies which is 65 more companies than the previous SSP update and represents a 1% increase in companies representing the mer sector in this iteration of the SSP.

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.

Table 2: Number of Companies by Size and Chamber

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

Chamber	Small (1 - 49)		Medium (50 - 150)		Large (>150)		All Companies	
	No.	% (row)	No.	% (row)	No.	% (row)	No.	% (column)
ACM	95	59%	28	17%	39	24%	162	3.4%
Auto		0%	2	15%	11	85%	13	0.3%
Metal	1596	63%	601	24%	342	13%	2539	54.0%
Motor Retail	1189	73%	307	19%	134	8%	1630	34.6%
New Tyre	1	20%	0	0%	4	89%	5	0.1%
Plastics	155	44%	127	36%	74	21%	356	7.6%
Grand Total	**3037**	**65%**	**1065**	**23%**	**603**	**13%**	**4705**	**100.0%**

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.

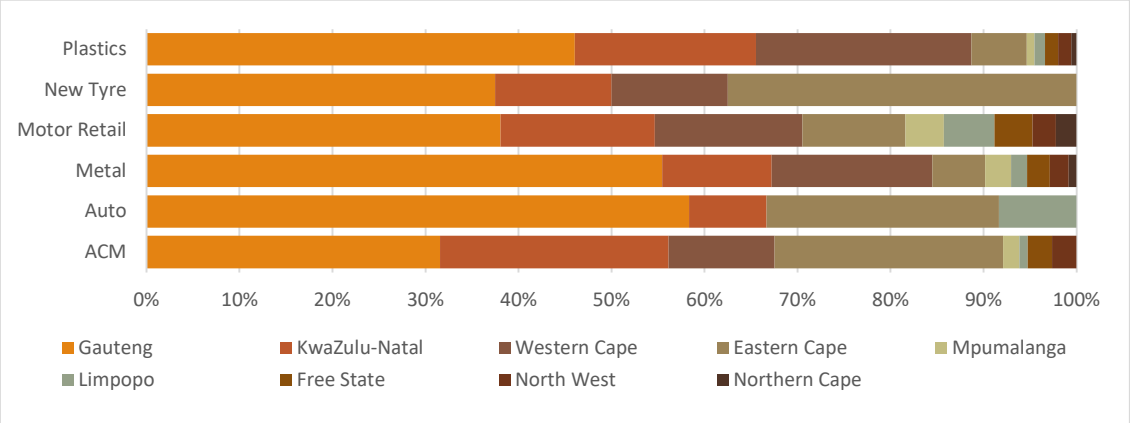


Figure 13: Enterprises by Chamber and Province

1.6 LABOUR MARKET PROFILE

1.6.1 Employment

The unemployment rate in South Africa was 35.3% in quarter 4 of 2021, up from 34.9% in quarter 3, representing jobless growth because even though GDP increased, it seems no jobs were created for the quarter. (StatsSA, 2022). Despite growing 7%, the manufacturing sector actually shed jobs in quarter 4 of 2021.

At a macro level there was an increase in both the employed and unemployed in quarter 4 of 2021. The percentage share of the discouraged workforce and the percentage share of not economically active population decreased and therefore there was a greater share of the population engaged in the labour market (labour force participation rate) but the statistics show growth for both employed and unemployed. In total the labour market had 262 000 more employed workers, 278 000 more unemployed, 56 000 fewer discouraged work seekers and 341 000 fewer not economically active people.

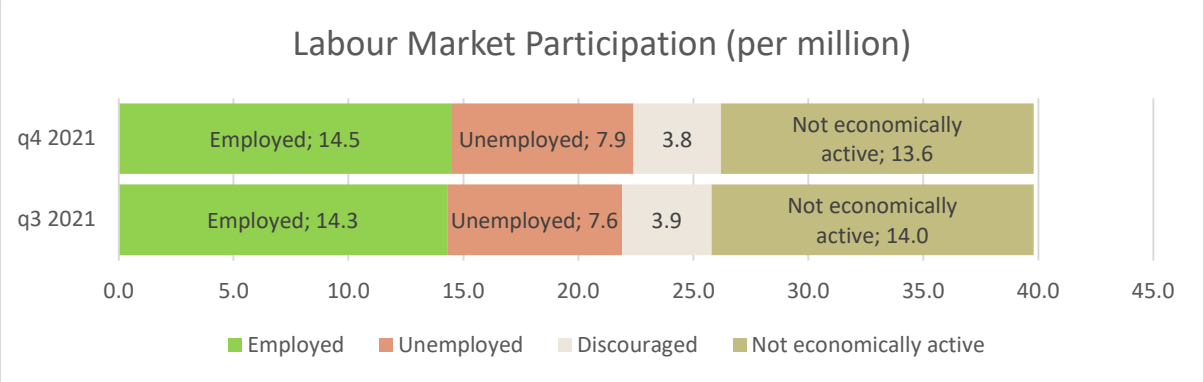


Figure 14: Labour Market Participation

Employment by sector

In South Africa at present there are around 40 million people of working age (15 – 64 years old). Of these, 35,5% (7,9 million) are unemployed. Of the 14,5million who are employed, the majority (9.8 million) are employed in formal employment (67,2%), 2,6 million (18,2%) work in the informal sector, 1,3 million (8,7%) are employed in private households and 0,9 million (6%) ae employed in agriculture. The share of employment in the formal sector increased by 143 000 people and the informal sector contracted by 48 000 people.

In terms of industry, the manufacturing sector contracted by 6.1% in terms of employment. The private household, trade, community & social services, agriculture, mining and finance sectors contributed to the employment growth in the fourth quarter of 2021.

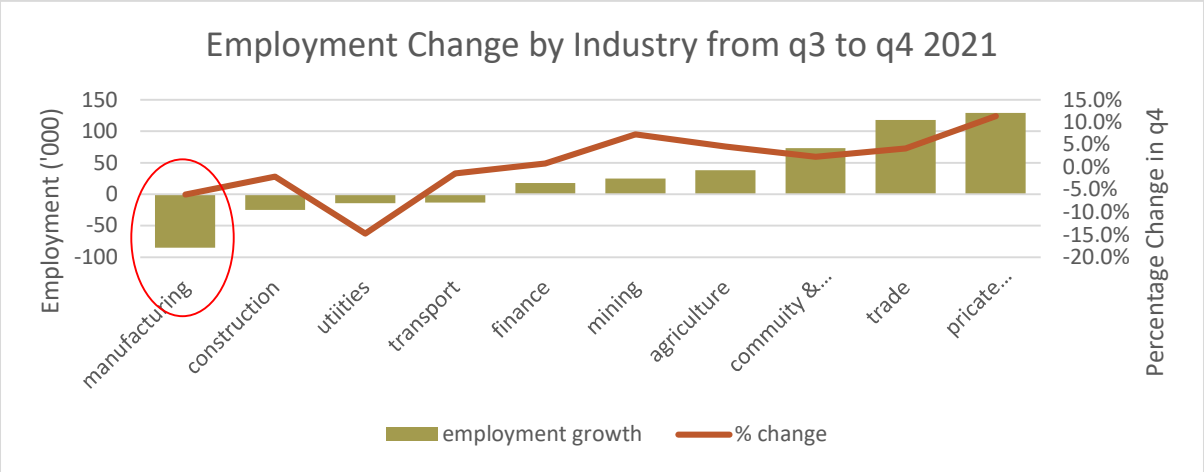


Figure 15: Employment Change by Industry from q3 to q4 2021

Employment by race, gender and age

In terms of educational level, there is a lower unemployment rate among graduates (11,8%) and those with some tertiary education (237%) as compared to those with a matric (37,7%) and less than a matric (39,8%). Therefore, the more educated the lower the unemployment rate.

Youth aged 15-24 years have higher unemployment (66,5%) than youth aged 25-34 (43,5%), combined the youth register higher unemployment than the national level. In terms of the other age cohorts, unemployment is lower at older age levels, those aged 35-44 have an unemployment rate of 30%, those aged 45-54 are at 22,8%and the lowest unemployment is seen amongst those aged 55-64 at 11,4%.

Unemployment in terms of race demonstrated that the Black African population has an unemployment rate of 39,1%, which is higher than the national average (35,3%). Among White people unemployment is 8,8%, among Indian/Asians it is 27,5% and among Coloureds it is 29,8%.

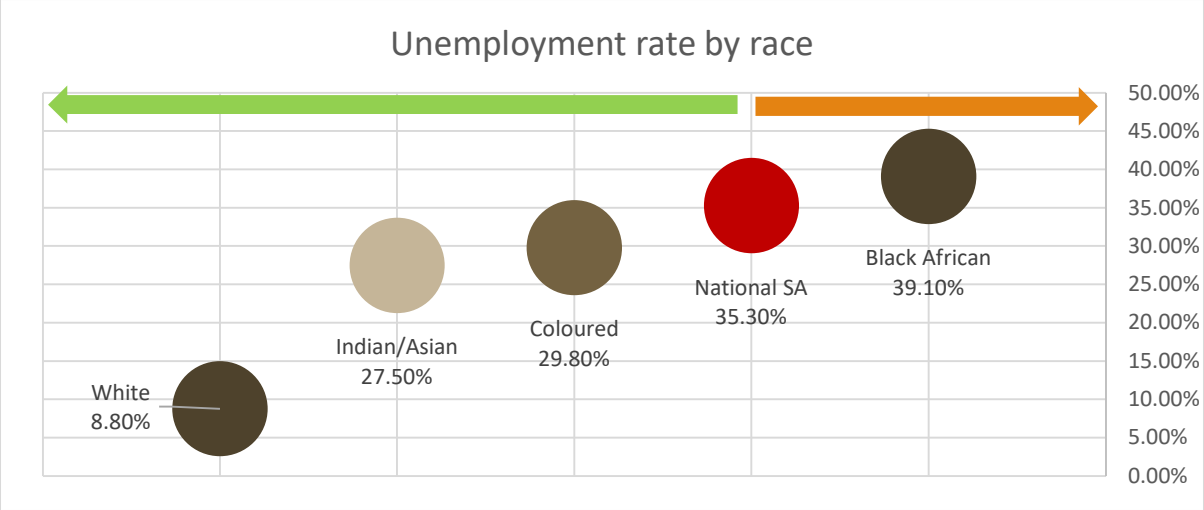


Figure 16: Unemployment rate by race

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 StatsSA in quarter 4 of 2021.

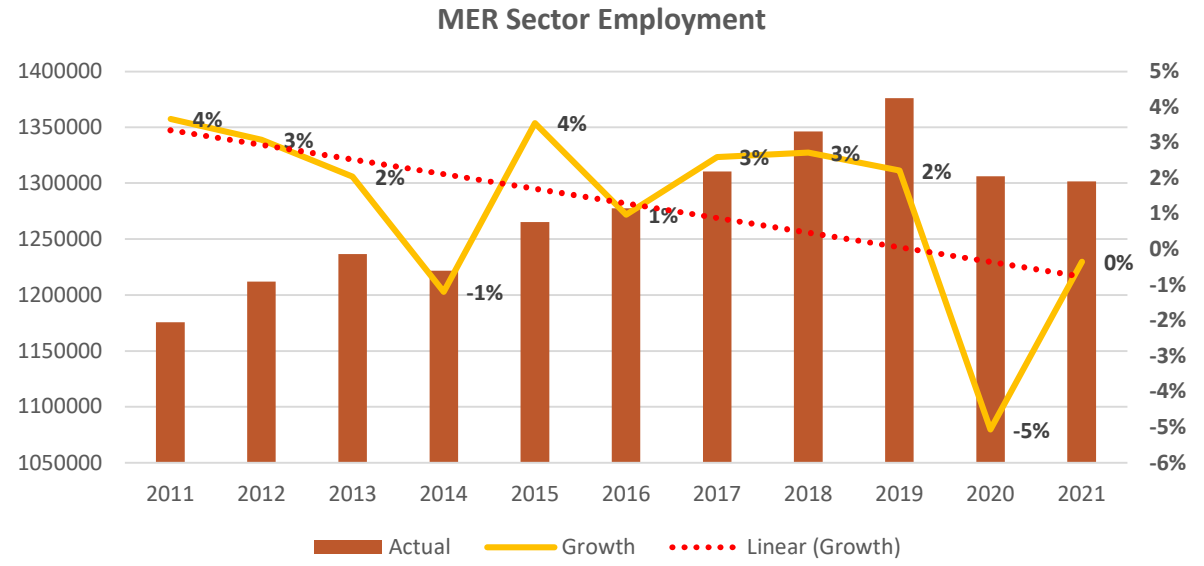


Figure 17: MER Sector Employment Rate

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)[6]. 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 an era

[6] https://www.econ3x3.org/article/why-has-manufacturing-employment-declined-so-rapidly

of deindustrialisation. Confounded 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 stimul. 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 StatsSA 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[7]. 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 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 3: Number of Employees by Company Size and Chamber

Chamber	Small (1 - 49)		Medium (50 - 150)		Large (>150)		All Companies	
	No.	% (row)	No.	% (row)	No.	% (row)	No.	% (column)
ACM	1705	7%	2573	11%	19013	82%	23291	5.0%
Auto		0%	155	1%	29492	99%	29647	6.4%
Metal	35721	14%	51733	21%	160572	65%	248026	53.5%
Motor Retail	24199	21%	25236	21%	67952	58%	117387	25.3%
New Tyre	11	0%		0%	5141	100%	5152	1.1%
Plastics	4282	11%	11515	29%	24420	61%	40217	8.7%
Grand Total	**65918**	**14%**	**91212**	**20%**	**306590**	**66%**	**463720**	**100%**

The number of employees in the sector have been reduced in the data from over 536 thousand employees in 2020 to in 2020 to 472 thousand employees in 2021. This could be due to the COVID-19 pandemic which resulted in many company closures as well as retrenchments in the sector.

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.

Table 4: Employees by Occupation Category

	Occupation Category	Employees	%
1	MANAGERS	41386	9%

[7] https://businesstech.co.za/news/business/589354/some-good-news-for-businesses-in-south-africa/

2	PROFESSIONALS	28113	6%
3	TECHNICIANS AND ASSOCIATE PROFESSIONALS	46765	10%
4	CLERICAL SUPPORT WORKERS	45013	10%
5	SERVICE AND SALES WORKERS	23535	5%
6	SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	90148	**19%**
7	PLANT AND MACHINE OPERATORS AND ASSEMBLERS	101367	**22%**
8	ELEMENTARY OCCUPATIONS	87392	**18%**
Total		**463719**	**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.

Table 5: Employment level by Chamber

Occupation Category	ACM	Auto	Metal	Motor Retail	New Tyre	Plastics	Total
MANAGERS	6%	7%	8%	12%	9%	7%	9%
PROFESSIONALS	5%	7%	7%	4%	6%	3%	6%
TECHNICIANS AND ASSOCIATE PROFESSIONALS	12%	22%	10%	7%	8%	7%	10%
CLERICAL SUPPORT WORKERS	10%	5%	9%	13%	6%	8%	10%
SERVICE AND SALES WORKERS	3%	4%	2%	12%	3%	2%	5%
SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	27%	12%	22%	17%	9%	10%	19%
PLANT AND MACHINE OPERATORS AND ASSEMBLERS	28%	42%	20%	15%	42%	33%	22%
ELEMENTARY OCCUPATIONS	9%	1%	20%	19%	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 even more skewed towards men since the onset of the pandemic. Most female employees however are clerical workers. Very few women are artisans/skilled trades workers.

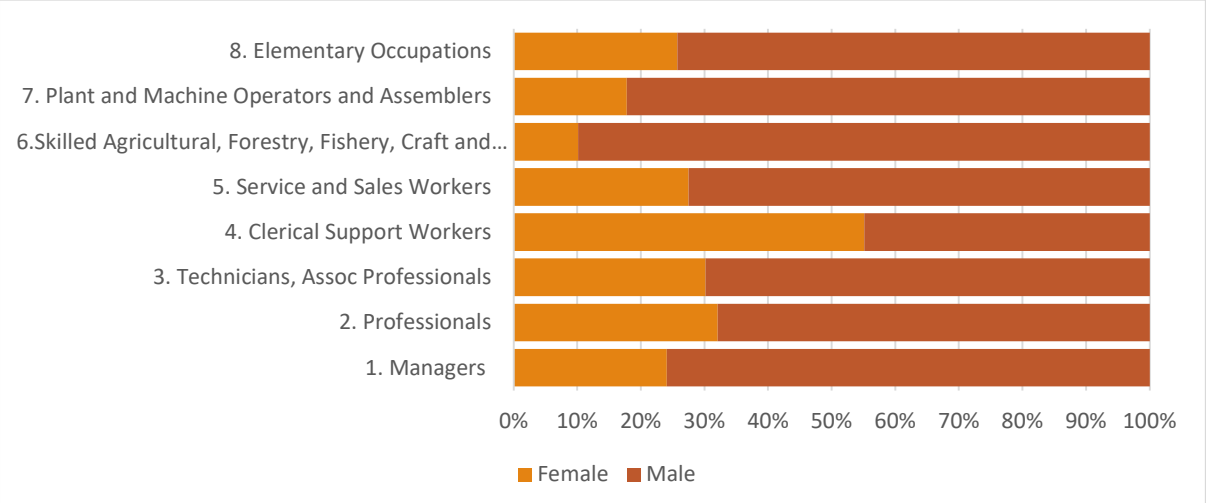


Figure 18: Gender Breakdown by Occupational Level

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 61% of merSETA employees are Black African, (21%) are white. Black Indians/Asians constitute 6%, while Black Coloureds constitute 13%. There tends to be a higher proportion of white and

coloured women in the sector in comparison to men. The sector thus demonstrates overrepresentation of White people with Black people underrepresented as per the table below.

Figure 19: Race and Gender Profile

Race	Male		Female		Total	
	Employees	%	Employees	%	Employees	%
Black African	64779	57%	217821	62%	282600	61%
Coloured	16821	15%	43156	12%	59977	13%
Indian / Asian	6591	6%	19485	6%	26076	6%
White	25926	23%	69140	20%	95066	21%
Grand Total	**114117**	**100%**	**349602**	**100%**	**463719**	**100%**

In terms of occupations, 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 with more Indian/Asian clerical workers and a higher proportion of White technicians. These tends are much the same as those reported in the 2022/23 SSP update.

Table 6: Race and Occupation Level

OFO Level	Occupation Category	Black African	Coloured	Indian / Asian	White	Grand Total
1	MANAGERS	3%	6%	18%	27%	9%
2	PROFESSIONALS	3%	4%	9%	12%	5%
3	TECHNICIANS AND ASSOC PROFESSIONALS	8%	9%	12%	14%	9%
4	CLERICAL SUPPORT WORKERS	6%	6%	10%	5%	6%
5	SERVICE AND SALES WORKERS	4%	5%	9%	7%	5%
6	SKILLED CRAFT & RELATED TRADES WORKERS	23%	26%	18%	24%	23%
7	MACHINE OPERATORS AND ASSEMBLERS	31%	24%	16%	4%	24%
8	ELEMENTARY OCCUPATIONS	23%	21%	8%	5%	19%
Total		**100%**	**100%**	**100%**	**100%**	**100%**

In terms of the age dynamics of the sector, most workers are less than 35 years old however the youth are more prevalent in elementary, clerical and skilled trades occupations. The proportion of 35–44-year-olds are prevalent across all levels with those older than 44 most prevalent at managerial level. There are very few workers aged above 55 but the majority are concentrated at higher occupational levels.

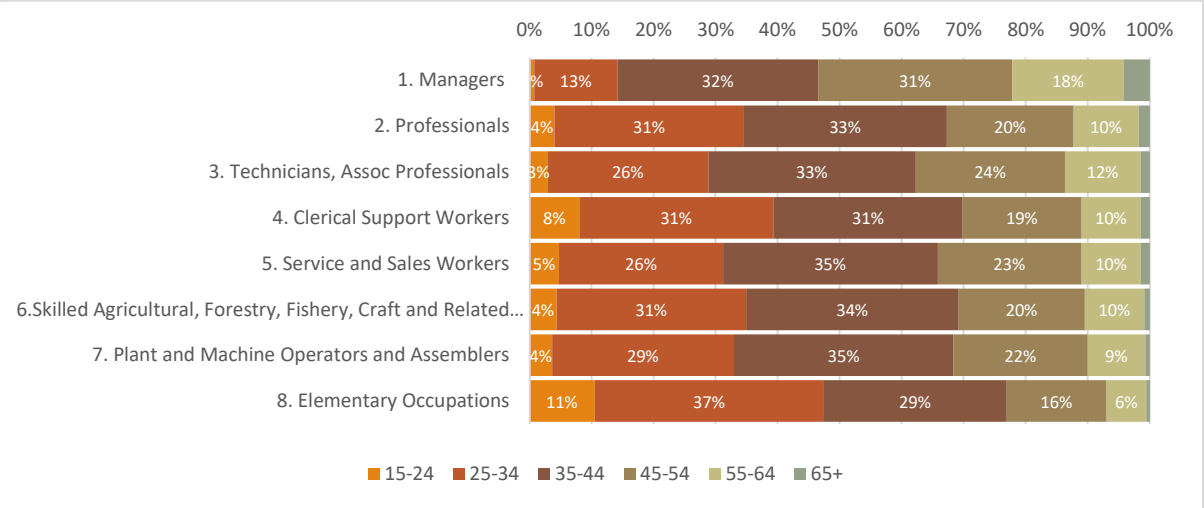


Figure 20: Age and Occupational Level.

In terms of disability, merSETA organisations employ approximately 6377 disabled people, this comprises 1.4% of all employees. The majority are unspecified disabilities (45%) followed by physical, hearing and sight as seen in the figure below.

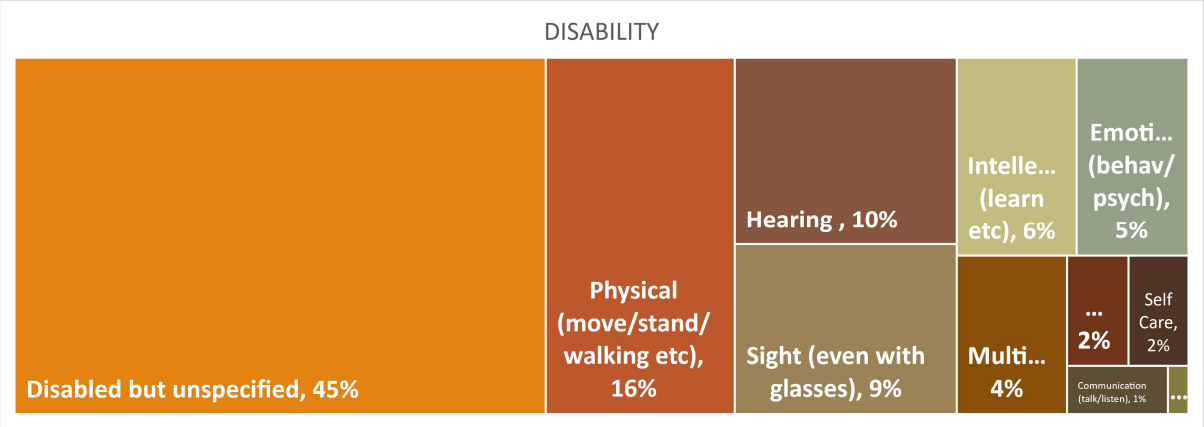


Figure 21: Employees with Disabilities

In terms of the occupations of employees with disabilities, the majority are clerical workers (27%), machine operators (18%) and elementary workers (14%).

Table 7: Occupational Level of Employees with Disabilities

OFO Level	Occupation Category	No.	%
1	MANAGERS	488	8%
2	PROFESSIONALS	534	8%
3	TECHNICIANS AND ASSOCIATE PROFESSIONALS	649	10%
4	CLERICAL SUPPORT WORKERS	1723	27%
5	SERVICE AND SALES WORKERS	223	3%
6	SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	725	11%
7	PLANT AND MACHINE OPERATORS AND ASSEMBLERS	1161	18%
8	ELEMENTARY OCCUPATIONS	874	14%
Grand Total		**6377**	**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 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 effects of the pandemic as well as automation. Reskilling and upskilling will be key for theses workers.

CHAPTER 2: KEY SKILLS CHANGE DRIVERS

2.1 INTRODUCTION

The 2022/23 year has been challenging for the mer sectors and businesses have had to be resilient. The COVID-19 pandemic wreaked havoc on the industry and many businesses struggled to survive in midst of a global pandemic and political miscontent, instability, corruption and poor service delivery. The South African economy suffered due to both local and international factors. Our local economy has taken strain due to looting and civil unrest in the KZN and Gauteng provinces, the recent KZN flooding and the ongoing energy crisis. Conflict in Africa and most recently in Central and Eastern Europe has caused further disruptions due to disruptions in the supply chain, soaring fuel prices and uncertainty in the markets impacting on imports and exports. The COVID-19 pandemic has also caused massive disruption to the market and most sectors are still trying to return to pre-COVID levels. The current climate has tended to speed up the pace of technological advances, recent events have again brought to the fore the importance of environmental sustainability because climate change has caused resource scarcity and industrial supply disruptions. The labour market has also tended to be precarious as evidenced by reports[8] highlighting the increasing unemployment over time, high churn in the jobs market and the inability of South Africa to leverage the skills in its labour market internationally.[9]

The SSP 2022/2023 update introduced global megatrends and their impact on the world of work. These in conjunction with the current political and socio-economic climate has implications for skills planning and development. This chapter outlines the key skills drivers in terms of transitioning form the 4IR to the 5IR and the demands for skills aligned to it. It then unpacks the notion of technological change in the mer sectors by reviewing primary research conducted to anticipate skills for new technologies. It further elaborates on climate change and environmental sustainability before unpacking the need to consider skills for the changing world of work. The changing world of work under the influence of automation is particularly relevant to the mer sector and this is elaborated in the chapter. The chapter also provides 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 Transitioning to the 5IR

Since mechanisation was implemented in the first industrial revolution, industrial processes have become ever more sophisticated and interconnected in terms of machinery and in terms of international collaboration and competition. Mechanisation and then computerisation made impacts on the labour market in terms of labour-intensive work, however as we move across to more sophisticated production processes, robotics, AI, virtual and augmented reality enable less labour intensity and opportunities to harness the skills of humanity and personalisation as seen in the graphic below.

[8] PwC Economic Outlook, WEF, The Future of Jobs Report

[9] PwC reports that SA ranks 101 in the world out of 141 countries for the skills of its current workforce (WEF, 2019).

[10] Projects include: The merSETA Atlas of Occupations Project, The Economic Complexity Project (still in progress but outputs thus far are relevant for the SSP), Project to anticipate labour and skills needs for technological changes, Project anticipating 4IR Skills for Mining Manufacturing, Skills for the Green Economy

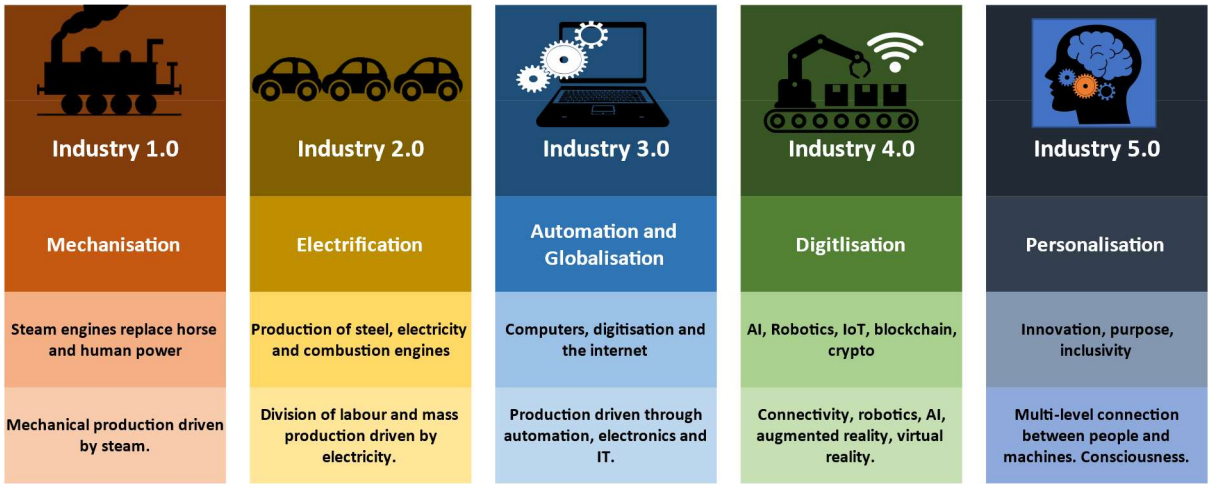


Figure 22: Industry 1.0 to 5.0

Most people in industry are aware of the 4IR and that the impact of the COVID pandemic has tended to expedite its impact on the world of work and business. Since 2020, there has been a shift in terms of the way in which industry operates, it seems that the transition from the 4IR to the 5IR is starting to gain momentum. This new industrial revolution implies that the notion of digitalization has become embedded in industry and that it is time to bring to the fore the human component in terms of personalisation. Ultimately the 5IR is about the combination of humans and machines in the workplace and the complexities that this entails in a complex digitally driven industry (WEF, 2020). The third and fourth revolutions had a major impact on humans and the environment. Previously, the labour market and businesses had to adapt their work and their livelihoods according to what the machines could do. The 5IR is transitioning to a different reality, humans are now the drivers of the production process. This transition has direct impact on skills demands. Skills are needed to keep the mer sectors in the forefront of technological developments and their industrial application.

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[11], which are also key for the 5IR. A key consideration here is to make pathways more visible and less expensive in terms of training.

2.2.2 ADOPTION OF NEW TECHNOLOGIES

In terms of the adoption of technologies, 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[12] 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. Given that the world is transitioning through the 4IR and towards the 5IR,

[11] https://www.harambee.co.za/disruptions-accelerating-the-future-of-work/

[12] 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.

companies in South Africa need to engage and implement new technologies and invest in skills to remain relevant.

To establish recent and emerging trends, companies were asked about solutions they have implemented in the past five years as seen in the graphic below. Results indicate that companies have mainly focused on improving employee safety, well-being and health (56%), shifting from paper to digital solutions (46%) and implementing quality management systems such as ISO (42%). These responses are reflective of the reaction to the COVID-19 pandemic as highlighted in the previous SSP update. The mer sectors tend to be in survival mode and are not tracking technologies for implementation in the medium to longer term.

When considering the impact of technologies on business functions, respondents indicated that there are

Figure 23: Tech solutions implemented by mer sector in past 5 years

some functions being displaced (36%), some functions are changing (33%) some functions have additional tasks assigned to them (30%).

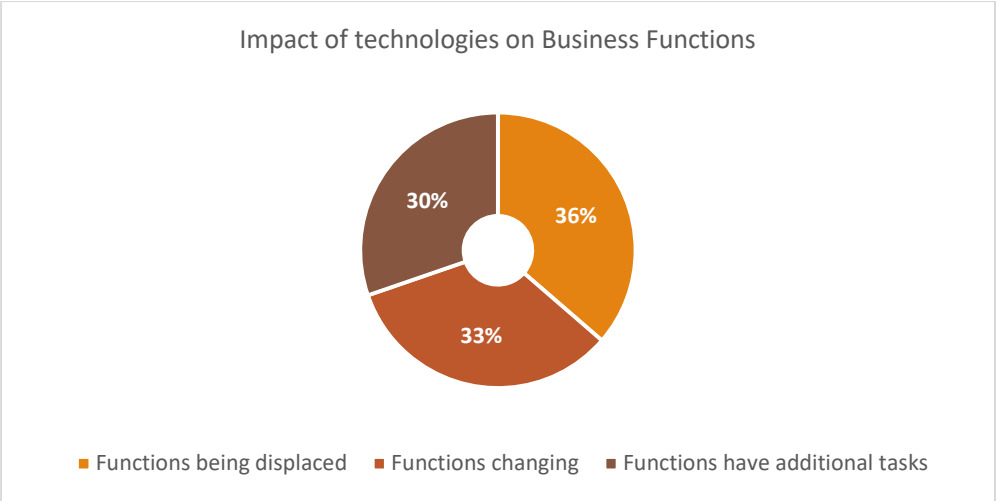


Figure 24: Impact of Technologies on Business Functions

In terms of the functions being displaced, changing, and getting additional tasks, the following emerged:

- Only 6% of companies report that some functions have been completely displaced, but 80% of companies report that some functions are partially displaced. This implies that these types of occupations require reskilling so workers can be relevant in the labour market.
- 90% of companies report that existing functions are shifting to some extent/a large extent, due to technological change. This implies that top up training is required to address skills gaps.
- 90% of companies report introducing new occupations due to technological change. These are occupations for which new skills pipelines may be needed.
- Historically, companies have trained a relatively small percentage of staff annually. The data suggests that technological change now means almost all staff require some form of skills development.

To address the skills needs most companies rely on internal systems to address skills needs. In response to the question about strategies they were using to address the skills needs, companies indicate that their own training centre (31%), learnerships (29%) and on the job coaching (28%) were top priorities for addressing skills. This is supported by interview data, which suggests that skills needs are running far ahead of Quality Council for Trades and Occupations (QCTO) processes of qualifications design, curriculum development and provider accreditation. Companies are often therefore innovating their own (unaccredited) on-the-job training solutions. The prevalence of learnerships and apprenticeships may reflect how companies are leveraging the tax rebates. Partnerships with universities and TVET colleges are less utilised strategies for skills development with 43% and 34% of companies respectively indicating that they do not have partnerships at all. Companies typically use TVETs and HEIs as a skills pipeline, rather than for critical skills development.

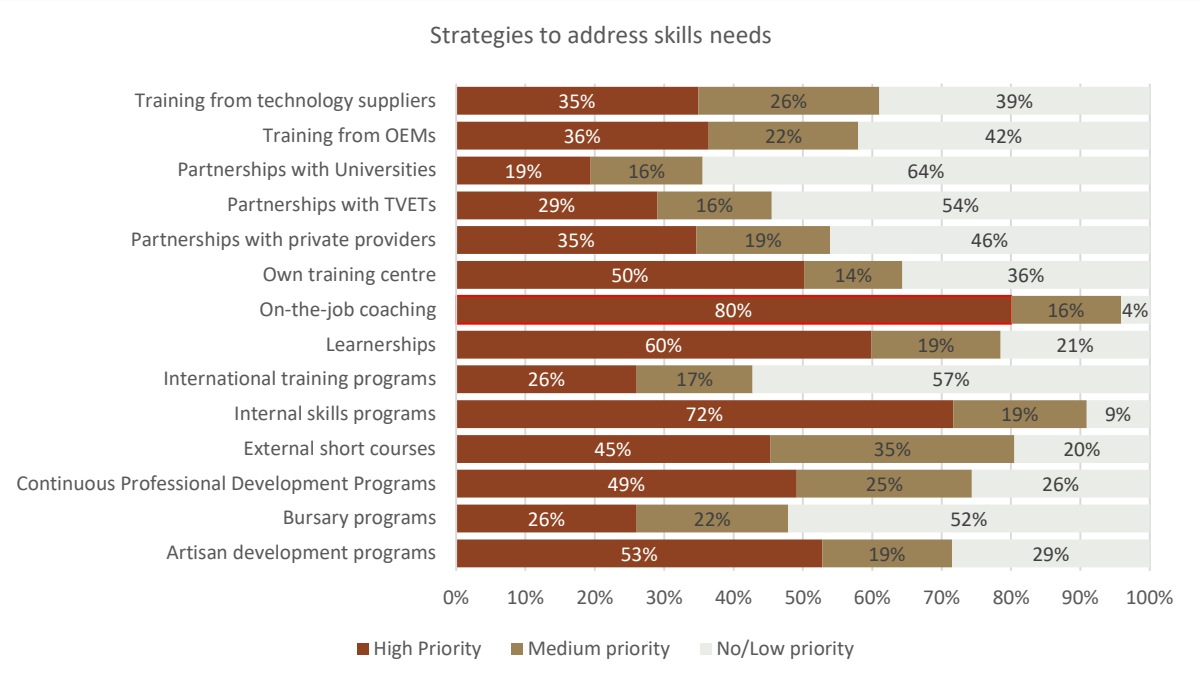


Figure 25: Strategies implemented to address skills needs

The research findings shows that the sector is not yet taking on an active role in the trajectory of adoption of technologies, the sector would thus be quite reactive rather than proactive in terms of technological advances as compared to international trends and the capabilities of multinationals to track changes in technology. This would therefore indicate that despite the world transitioning to the 5IR, South African manufacturers are lagging as they are tending to be passive rather than actively pursuing capabilities in terms of technology. Small and medium companies require additional support in this regard as they tend to be suppliers to the larger OEMS who are more au fait with global trends. This is key for the localisation agenda in terms of ensuring that the sector is geared up to take up opportunities to supply OEMs with locally produced products and components.

2.2.3 CLIMATE CHANGE AND ENVIRONMENTAL SUSTAINABILITY

Much like technological advances, the notion of the green and circular economy as it relates to climate change and environmental sustainability is tending to drive business processes and skills required to meet these. Internationally there is a big push for "net zero carbon emissions by 2050", this essentially means that industries are investing in reducing their carbon footprint. As South Africa is still reliant on coal to fuel its energy demands, careful considerations are needed to make the transition to this low carbon outcome.

There will be an ever-increasing demand for clean technologies and energy solutions, as such solar and renewable energies, and 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.

At the global climate summit - COP26 in November 2021, there was a strong request for developing countries to transition away from fossil fuels and adopt less carbon intensive energy production.[13] It is expected that global warming will exceed 1.5^0C in the next 20 years unless drastic action is taken to reduce the carbon footprint. The South African government has entered a partnership with the governments of France, Germany, the UK, USA and EU for a just energy transition to accelerate the decarbonisation of SA.[14] The partnership will initially invest $8.5 billion to prevent +/- 1,5 gigatonnes of emissions over the next 20 years. South Africa should reach "net-zero" by 2050 and by 2030 greenhouse emissions should be halved through energy efficiency and deployment of renewable energy. The South African economy is at heavily reliant of fossil fuel and the coal value chain provides a livelihood for many South Africans at present.

It has been reported in previous SSPs that a key concern among stakeholders in the mer sector is the lack of clear training interventions and opportunities to develop talent in line with the opportunities presented by the green and circular economies. The merSETA have recently completed research in the area of green skills and it seems that the interventions on this area are being driven by the private sector on topics that are related specifically to their business environment. There needs to be a concerted effort to raise new opportunities for occupations in the green space such as wate management, renewable energy and the circular economy. Design for the environment, critical thinking and problem solving are key skills raised by stakeholders in this area as well as the need to embark on producing products and processes that are green.

The Global Eco-Industrial Parks Revitalisation Programme was launched in South Africa in 2020 (partnership between the DTIC, National Cleaner Production Centre SA and UNIDO). Eco-Industrial Parks are industrial hubs in which businesses cooperate with each other and the local community to reduce waste and pollution, share resources, and achieve sustainable development. This model of collaboration to reduce carbon emissions and ensure that businesses work with the design of the environment provides a blueprint for further collaboration in the manufacturing sector to reduce waste and pollution. Studies in this area will highlight skills requirements, merSETA should implement research in this area to understand skills required.

2.2.4 SKILLS AND THE CHANGING WORLD OF WORK

The transition to the 5IR and lessons learned from COVID pandemic in terms of the agility required by the labour market to adapt cannot be side-lined, nor undermined when considering the future of mer sector. The WEF report has also highlighted the need to pay cognisance to a multigenerational workforce who have different outlooks in terms of work and working. The notion of remote work and hybrid work models have come to the fore as we transition through the pandemic. In their report on the future of jobs, the WEF report that almost half (44%) of the workforce has the potential to work remotely due to the adoption of new technologies and transitioning of skills (up-skilling, re-skilling and multi-skilling) to be able to navigate this new reality. Digital tools will need to be implemented to ensure productivity and ensure mental health and a healthy work-life balance. A key update on the changing world of work is the tendency to increase inequality, even in more developed regions due to the uneven access to the knowledge and gig economy. Vulnerable groups – women, entry level workers and the youth may be left by the wayside as jobs become automated and routinised work becomes redundant.

[13] https://issafrica.org/iss-today/cop26-a-mixed-bag-for-africa

[14] https://ec.europa.eu/commission/presscorner/detail/en/ip_21_5768

In 2018, the merSETA commissioned research test the potential of automation of routinised tasks in the labour market to become obsolete. The evidence was clear that many workers could be displaced as new technologies are implemented. 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. The outcome of the analysis presents the following:

- Employees who are least likely to find themselves in occupations at risk of automation are white, more highly educated, and non-unionised.
- The is a significant gap in average years of education required by individuals in routine relative to non-routine occupations
- The MER sector labour market features a polarised occupational structure across which occupations at high risk of employment displacement are not randomly distributed. This polarised occupational structure features two distinct occupation clusters in the MER sector occupation space: Firstly, a set of production orientated occupations, comprising low-skilled elementary occupation workers, and semi-skilled craft workers and machine operators. Secondly, a set of non-production occupations, comprising high-skilled legislators, senior officials and managers, professionals, semi-skilled clerks, associate professionals and service workers.

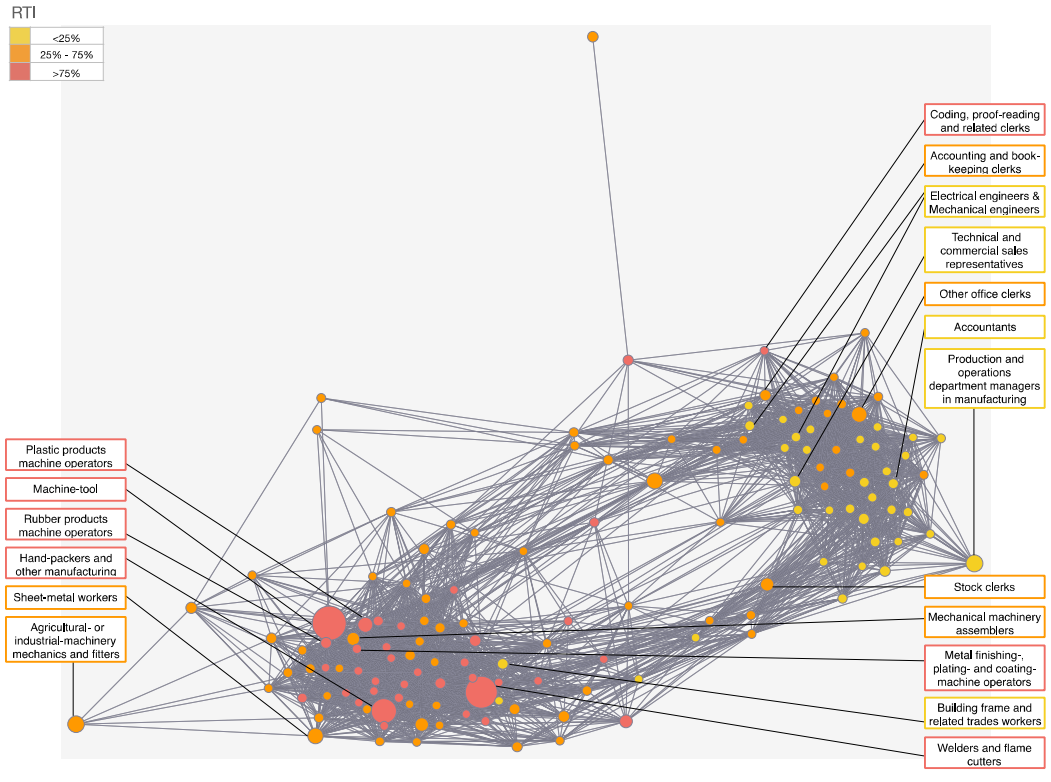


Figure 26: The MER Sector Occupation Space - Routine Task Intensity (Source: Authors' calculations from PALMS v3.3 (Kerr, Lam & Wittenberg, 2019) and O*NET (2020))[15].

[15] Notes: 1. Occupations with a value of the RTI equal to or lower than the 25th percentile of the RTI distribution are classified as "non-routine" or 'low risk' and shaded yellow. 2. Occupations with an RTI between the 25th and

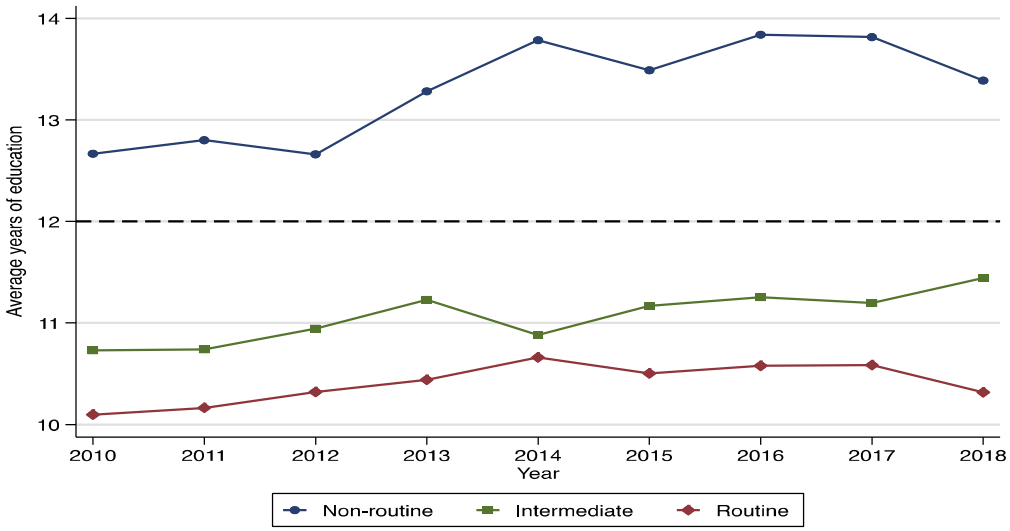


Figure 27: Average education level of employees by MER Sector occupation risk category, 2010-2018. Source: Authors' calculations from PALMS v3.3 (Kerr, Lam & Wittenberg, 2019) and O*NET (2020)[16].

Overall, occupations at risk of automation and redundancy are not randomly distributed across the mer sector, there is a clear cluster of workers who need to be assisted to remain relevant in the labour market. These workers are typically lower skilled elementary workers and operators, and semi-skilled trades workers (artisans). Occupations that are prevalent in the mer sector that are at risk are machine tool operators, welders, and other manufacturing labourers, who together, account for approximately 29.5 percent of total mer sector employment (DPR, 2020)[17]. Furthermore, workers in these roles tend to be comprised of Black, female and youth workers according to the mer sector employee profile. The sector will demand more relatively higher skilled workers and due to the higher volume of workers in these segments of the labour market, unemployment is likely to increase. Therefore, firms in the mer sector should act with expedience in terms of understanding their occupational demands in the medium to long term and put in place measure to upskill and reskills workers.

2.2.5 Summary of Drivers

Table 8: Summary of Skills Drivers

Skills Drivers	Implications for skills development
The 5IR	Personalisation requires skills that only humans can do to drive industrial processes • Technical skills for digital processes • Top up and soft skills for digital leadership • Top up and soft skills such as listening, communication, empathy and decision making • Making opportunities to access skills easier (pathways must be more visible and less expensive)
Adopting New Technologies	Assist businesses to track technological advances and make ready skills opportunities for workers in line with these. Assist small and medium

75th percentile (exclusive) of the RTI distribution, are classified as "intermediate" or 'medium risk', and shaded orange. 3. Occupations with an RTI above the 75th percentile of the RTI distribution is classified as "routine" or 'high risk', and shaded red.

[16] Notes: 1. Occupations with an RTI below the 25th percentile of the RTI distribution are classified as non-routine, those above the 75th percentile as routine, and those in between as intermediate. 2. Dashed horizontal line indicates a completed secondary education.

[17] List of occupations at risk of redundancy (DPRU) attached as Annexure 2

Skills Drivers	Implications for skills development
	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.
Environmental Sustainability & green economy	Reduce carbon emissions and utilise renewable energy sources – requires upskilling workers and ensuring all workers are aware of the impact of individuals and businesses on the environment. Pivot away from fossil fuels in the next 15 to 30 years – invest in skills to take up opportunities and assess skills at risk of redundancy. Need widely accessible interventions and not only privately designed bespoke solutions.
Changing world of work	Reduce inequalities in terms of access to relevant skills pathways. Reskill and upskill workers who are at risk of redundancy due to automation and 4IR interventions (particularly artisans, operators and elementary workers). Produce a pipeline of youth to take up emerging opportunities in the space of tech advances.

2.3 POLICY FRAMEWORK 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 National Development Plan 2030

The NDP is the overarching framework guiding economic development in South Africa. The NDP prioritises improving the quality of education, skills development, and innovation. Various requirements for the skills development system which are set out in the NDP are considered in skills planning, the most important of which are the following:

- 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.

National Skills Development Plan (NSDP), and the National Plan on Post School Education (NPPSET)

Two foundational plans guide skills development; namely: the National Skills Development Plan (NSDP), and the National Plan on Post School Education (NPPSET). The purpose of the NSDP (its predecessor is the White Paper on Post School Education & Training (2013)), 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.

In the 2022/23 SSP (Sector Skills Plan) Update, it was noted that the COVID-19 pandemic and subsequent economic depression has impeded the already poor socio-economic outlook in terms of meeting the 2030 National Development Plan (NDP) targets. The National Planning Commission (NPC) report stated that the

county needs to recalibrate efforts to reach the desired outcomes of the NDP but more importantly, the report provides recommendations in terms of dealing with the pandemic, namely:

- restoring financial and fiscal sustainability,
- building the capital asset base and the people asset base.
- ensuring digital readiness.
- creating dynamism in industries to create jobs.
- focusing on public employment and building a capable state.

These recommendations 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 by focusing 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. The Department of Trade, Industry and Competition (DTIC) has also endorsed the sectoral master plans in support of the ERRP

2.3.2 POLICY MATRIX AND THE MERSETA RESPONSE

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
Economic Reconstruction & Recovery Plan (ERRP) *AIM: To build the South African Economy to reach its full potential by being sustainable resilient and inclusive.*	Linked to the skills strategy, the ERRP highlights the importance of science and innovation. To this end the following themes are key: ● Circular Economy & energy efficiency – there is a need to ensure just transitions to the green and circular economy, and its economic potential	1. Improve access to targeted skills programmes. 2. TVET programmes and curriculum updated and amended – auto and medical sectors are priority. 3. Focus on WBL and experience in the manufacturing sector. 4. Skills for job preservation 4.1. Retrain and upskill for local manufacturing.	The merSETA has been cooperating with the DHET (Department of Higher Education and Training) in terms of identification of skills for the ERRP linked to the mer sector. These skills have in term been taken up in the SPP analysis of priority occupations and will therefore be prioritised for discretionary funding.

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
****It has a clear skills strategy which should be embedded in SETA operations aligned to specific industrial plans and master plans*	● Recycling, social entrepreneurship and low carbon emissions should be prioritised. ● The digital economy is critical. All commercial and industrial actions are increasingly linked to digital infrastructure and digital commerce. To attain a foothold in terms of accessing new products and new markets will require ever more sophisticated digital infrastructure, efficiencies, intelligence and analytics. <u>The ERRP highlights the following key sectoral enablers:</u> ● Industrialisation and localisation; ● Infrastructure development. ● Energy & food security. ● Green industries. ● Digital economy & network industries; and ● Public Employment	4.2. Focus on engineers, technicians, artisans (qualifications in priority sectors – localisation and agro-processing). 5. Artisan development & supporting Centres of Specialisation (CoS). 6. Meeting Demand for Critical Skills (Immigration and Dept of Home Affairs) 6.1. Develop strategies for local skills development in the medium to long term) 7. Support entrepreneurship and innovation. 8. Embedding skills planning in sectoral processes 8.1. Sector Master Plans require active SETA participation. 9. National Pathway Management – connecting learners to employers 9.1. Pathway Management Network (PMN) – through the range of channels that are in place including Public Employment Services (PES/ESSA/DEL) as well as the SA (South Africa) Youth Mobi (supported by Harambee). 9.2. The DSI will continue to work with SETAs (Sector Education and Training Authorities) and partners to support Pathway Management Network to map all services available to young people.	Access to learning opportunities should be prioritised for the youth, women and marginalised groups to ensure inclusivity. Studies such as the GBV project, programme evaluations and skills demand research have been completed or are in progress. Tracking the achievements of the SETA against the SLA (Service Level Agreement) and APP (Annual Performance Plan) is a standard practice. 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 prioritised. Furthermore, partnership beyond only skills interventions should be explored – this is in terms of infrastructure projects and key business development initiatives in which the SETA could provide the skills development funding with other partners funding the "non-skills related" aspects of the project. This will also better support outcomes in terms of the master plans and initiatives already identified by government for economic growth.
Sectoral Master Plans: Automotive Master Plan	The SAAM (South Africa Automotive Master) vision is underpinned by a set of	Technology and Associated Skills Pillar:	Much research has been completed on skills and occupations in demand

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
Vision (to 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	realizable objectives. These objectives are to: ● Grow South African vehicle production to 1% of global output ● Increase local content in South African assembled vehicles from 38% to up to 60% ● Double total employment in the automotive value chain ● Improve automotive industry competitiveness levels to that of leading international competitors ● Transformation of the South African automotive industry ● Deepen value addition within South African automotive value chains	● Skills aligned to the EV roadmap which highlights changes to the domestic, regional, and international markets supplied by the local industry, and the associated technology developments. ● To secure local content provision for assembly – preparing and responding to new technologies including powertrain and drivetrain developments as well as active and passive safety technologies, material composites, infotainment technologies, the increasing use of nanotechnology, additive manufacturing, and product recycling ● New production technologies aligned to the green technologies and sustainability ● Value addition and better utilisation of materials such as steel, aluminium, platinum and other metals	in the auto sector (both future skills and artisanal skills demands) - interventions aligned to the recommendations of the research should be explored. NAAMSA and NAACAM (NATIONAL ASSOCIATION OF AUTOMOTIVE COMPONENTS AND ALLIED MANUFACTURING) are undertaking intensive research and working with TVET colleges to align curricula and skills development to industry demands. The merSETA should partner with these organisations to plan for the future uptake of learners for qualifications and interventions that will be in demand to achieve the objectives of the master plan.
Sectoral Master Plans: Steel Master Plan The steel master plan is positioned as a practical guide aligned to the "re-imagined industry strategy and ERRP"	The 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. Key areas are both upstream primary products and downstream value-added products (which should replace imports). The downstream requires long term interventions and a keen focus on green production. The greening of the economy is seen as a key opportunity for growth within the sector. A longer-term	The Steel Master Plan makes skills development recommendations which includes: ● Coherent skills strategy for the sector – collaboration and alignment with industry, TVETS, HEIs (Higher education institutions) and merSETA ● Increase occupational training – WBL ● Standardize curricula ● Industry to agree on priority skills ● Build a pipeline of youth to take up opportunities in the sector ● Train and upskill trainers, mentors, lecturers to keep up to date with current industry demands ● Align supply and demand for skills ● Skills audit research – headed by DHET or DSI	Much of the recommendations emanating from the master plan are already in place but perhaps a focus on key partnerships aligned to the trajectory of the sector should be taken up Synergies across sector should also be explored particularly across the automotive, mining manufacturing and components manufacturing (and even furniture manufacturing) value chains.

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
	outlook will also foster the transformation of the sector. It is also acknowledged that medium term supply and demand is also important with a keen focus on meeting demands in the auto sector and other metals components industries. Growth measures: ● Infrastructure development ● Localisation ● Increasing exports – especially downstream products ● Green of the industry ● Developing local industry value chains ● Remove barriers to entry – particularly on the side of govt departments	● Research and develop a current and future skills plan. ● Align training with demands of the 4IR, upskill and multi-skill workers I line with current and future industry demands.	Investments are needed for the long-term outlook to foster growth and transformation in value addition. Skills will also play a key role in these long-term plans.
Sectoral Master Plans: Plastics Master Plan Vision: Being a proactively adapted industry that can fully supply the growing, and forever changing needs of the local and export markets; an industry that can create jobs, advance transformation and economic inclusion; and	The Plastics Master Plan is built on the pillars of value chain localisation, plastics and the environment, industrial package incentives, polypropylene beneficiation, testing research & development and trade environment. As with many of the other value chains – localisation is a key initiative to offset imports. For plastics, interventions seem to focus on producing goods for the retail sector and to supply the auto	The Plastics Chamber has noted the lack of a skills intervention pillar or skills recommendations within the Master Plan. Capabilities for manufacturing should be assessed as well as key markets in which beneficiated plastics products are in demand. Skills for the greening of the sector should also be explored – particularly the circular economy and the issue of plastics that at present are not recyclable.	There is currently a process underway to assess skills needed to ensure the outcomes of the Master Plan through the MerSETA Plastics Chamber. Perhaps a partnerships model needs to be established to find synergies across sectors that require plastics products and components. The role of skills and skills development partners like the merSETA should be considered

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
sustainably industrialises in an environmentally responsible manner.	sector in terms its own localisation efforts. The circular economy is key – to eliminate plastic waste and grow opportunities in recycling and find alternatives for plastics that cannot be recycled. Industrial incentives are identified as a vehicle through which capabilities are developed to offset global competition.		
Sectoral Master Plans: ICT (Information and Communication Technology) and Digital Economy Master Plan – DRAFT discussion document *This plan aims to safeguard against widening digital inequality which much like radical economic transformation could impede access to good livelihoods.* *To keep pace with global standards, SA must adopt new digital technologies and also prevent further decline of the economically and*	The digital economy is described as the use of digital technologies in the production, trade and consumption of goods and services. The digital economy comprises 3 concentric circles. At its core is the physical technologies and devices on which software and algorithms run, the next layer represents digital providers who use the technologies to provide a range of digital products and service. On the outer circle is the digital applications layer which consumes the products and services of the digital providers to transform their business. Across all the 3 layers is electronic data which is both produced and consumed for the operation of digital technologies and applications.	A key objective of the plan is to establish an education and skills development ecosystem that provides all South Africans with the skills required to create and participate in the economic and social opportunities in the digital economy. Digital skills interventions are required at schooling level (basic education), post school level (tertiary) and within the labour market. For post schooling the plan recommends outcomes rather than outputs from the SETAs so that graduates have skills that can be taken up in the labour market. The skills system must be modernised in terms of qualifications and credentialling. A digital apprenticeship and digital apprenticeship centers are proposed.	Transformation imperatives are key to offset inequality in the digital space. For SETAs this requires recruitment of disadvantaged individuals and vulnerable groups into up-skilling and reskilling initiatives aligned to the digital economy. Digital curricula must be explored and assessed for the manufacturing sector along with the demanded qualifications and credentials. Explore the notion of a digital apprentice and digital apprenticeships. Possibly draw on best practice learnings from the ICT4APP project. In addition, the lecturer development programme should be expanded to cater for digital interventions.

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
digitally disadvantaged sectors	The digital economy is changed the entire global economy because it impacts on industrial structure, transaction and costs. This includes: ● how information is generated and shared, ● how production occurs, ● how products get from producers to ● consumers, and ● how risk is managed Business application of the past may have been physical or manual in nature are now totally digital – e.g., banking, postal services retail transactions and telephony. These digital applications tend to perpetuate each other and continuously unearth new production processes, systems, products and applications – constantly	Ultimately the training ecosystem must provide a scalable pipeline of demand-driven candidates that are prepared to take up work in the digital economy. Teachers, trainers, lecturers must also be upskilled to deliver on the requirements of a digital curriculum.	Explore the notion of jobs in the digital economy vs the gig economy – how will a skills ecosystem for the digital economy create sustainable jobs/occupations. *The TIPS project has highlighted that the mer sector is not aligned for a technological trajectory – most companies are late adopters of new technologies and there is an overall lack of understanding about the possibilities of the manufacturing in the digital economy. Recommendations from this study should be taken up.*
Presidential Commision of the Fourth Industrial Revolution The President established a commission on 4IR to propose a strategy for 4IR and make recommendations on institutional requirements across various sectors.	The report distinguishes between Industry 4.0 (I4.0) and the Fourth Industrial Revolution (4IR) - I4.0 is the outgoing phase which emphasizes the digitization of manufacturing using technologies of IoT, robotics, cloud computing etc. Whereas the 4IR which builds on I4.0 to incorporate smart and autonomous systems fueled by data and artificial intelligence. The 4IR has more scope for social and economic value.	To achieve the long-term impact of the 4IR the following are required: ● Modernise network industries (electricity, telecoms, transport, water) ● Lower barriers to entry and diversify ownership in industry ● Prioritise labour intensive investment in growth sectors such as agriculture and services ● Implement flexible industrial and trade policies ● Promote export competitiveness and regional growth in transport, energy and construction	Need to invest in flexible training and qualifications development such as micro-credentialling. Promote lifelong opportunities to acquire and develop a portfolio of sellable skills. *The ICT4APP is a good example of the effort required to put in place usable mechanisms to build flexible yet recognized skills and qualifications – best practice should be documented*

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
	The commission advises that the 4IR technologies are nascent – in that they are still in development which provides opportunity to develop skills, infrastructure, technologies and entrepreneurial capacity to localise 4IR industries. Long term impact of 4IR: ● Light up and power Africa ● Nourish Africa through agriculture ● Industrialise Africa ● Ensure Africa's wellbeing (Health, Education, Government, Smart cities)	Interventions are required to leapfrog the youth into productive opportunities and upskills the current workforce. The educational requirements of the 4IR will require stackable competencies which comprises micro-credentials.	*and utilized to ramp up access to similar interventions.*
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.	NPC report is a reminder of the key economic proposals in the NDP. It aims to highlight significant enablers and barriers towards progress and meeting the goals set by the plan. Goals are to eradicate unemployment, poverty and inequality by: 1. Making decent livelihoods accessible 2. Developing a responsive labour market for expanding employment and growth (diverse and inclusive). 3. Integrating living and work for inclusive growth (spatial planning). 4. Securing a higher rate of investment. 5. A diverse industrial base that absorbs labour.	1. Reduce disconnect between TVET and workplaces to improve absorption rates. 2. Ensure improved throughput rates as graduates tend to be more successful in terms of attaining employment. 3. Integrate skills planning in sector master plans. 4. Engagements between DHET, DTIC, SETAs and industry associations to develop skills development plans that integrate the different forms of provision and inform decisions about the industry. 5. SETAs should review their grant criteria and funding allocations to promote longer-term, more advanced skills development.	The merSETA has implemented multiple initiatives to support TVET colleges and bridge the gap between industry and learning institutions. The merSETA has also been tasked by the minister to lead the review of engineering related curricula with TVET colleges. The DTIC master plan working groups have invited collaboration with SETAs on the skills pillars of the sectoral master plans. The merSETA has participated in workshop discussions for the master plans. Supporting the master plans directly can be a little complex because the SETAs work within a set legislative framework

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
			which is somewhat limiting. Interventions and partnerships will require clear strategies to engage in collaborative efforts within the SETA mandate and legislation.
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.	Advancement of electric vehicles and battery electric vehicles. ● Cutting edge technologies are required along with a conducive business environment to ensure SA is not lagging behind global competitors. ● Switching to EVs - Phasing out of internal combustion engines, switching to hybrid vehicles and eventually completely electric vehicles. ● Global competitiveness - high value business environment, making SA a leading and highly competitive location, not only on the African continent but globally, for EV production ● Requires infrastructure development, investment in new component technologies, energy production and business development. ● Develop skills for the design, engineering and manufacturing of electric vehicles and related components and systems.	Advance skills to produce EVs and hybrids – impacts on the auto, metal and automotive manufacturing sectors. The SSP highlights the need to explore skills required for the manufacturing of fuel cells or batteries to facilitate economic growth and job creation. Overall, a better understanding of the skills requirements and magnitude of impact on the labour market is required for planning. TVET and HEI (Higher education institutions) curriculum development and industry partnerships must be fostered to support the market. Green technologies and requirements to reduce emissions in manufacturing is key. R&D required to support a competitive advantage.	Leadership required to unpack the requirements to support the transition to green energy and green technologies. Skills requirements will need to be assessed in terms of new labour market entrants and the reskilling required by current labour market participants. Identify opportunities for development in this sector and requisite interventions to be supported by SETAs.

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
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)	The NWMS 2020 strategy addresses the role of waste pickers and the informal sector in the circular economy and addressing the skills gaps within the sector. ● Facilitate job creation in the waste sector ● Increase compliance and awareness of waste management. ● Diverting waste from landfill by leveraging the concept of circular economy to drive sustainable, inclusive economic growth and development in the waste sector. ● Reducing the social and environmental impacts of waste.	Integrate education and training programmes for green skills which are required for developing an environmentally conscious workforce. Integrate opportunities for skills in green compliance and waste management for entrepreneurs and small businesses. Investigate opportunities for skills investments in the waste management value chain.	Assess skills requirements and set up innovation projects to support skills development in the circular economy. Assess green skills top up/critical skills requirements across the sector – particularly amongst artisans and industrial workers. Partnerships to facilitate development of the circular economy R&D for the potential to develop the circular economy within mer sector value chains.
National Environmental Management: Waste Act, 2008 (Act No.59 of 2008): Amendment of the regulations and notices regarding extended producer responsibility	The amended regulations ensure producers to become more responsible in how they manage electronic waste- Extended Producer Responsibility Key themes to consider: ● Manufacturer or producers are responsible for the product end life of their products ● Recycled waste products that are sent to landfills are kept to a minimum	These are amended regulations that impact the merSETA as it will allow for more skill development programmes in the sector to increase through companies' capacity to employ individuals who may assist in the recycling of the end-of-life products	Collaboration opportunities with the Waste Management Institute of Southern Africa to ensure companies accredited with merSETA comply with the new regulations It is an opportunity for merSETA to work with Chambers and other key industry stakeholders in the mer sector to ensure recycling is prioritised thus expanding the Circular Economy.

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
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.	The youth policy prioritises 5 pillars: ● Quality Education, Skills and Second Chances. ● Economic transformation, Entrepreneurship and Job creation. ● Physical and Mental Health Promotion including Covid 19. ● Social Cohesion and Nation Building; and ● Effective and responsive youth development machinery. The 4IR is cross cutting in respect of the 5 pillars. Employment stimulus to create jobs and support livelihoods through a relationship between the private and public sectors was one of four of President Ramaphosa's government priority interventions.	Ensure a pipeline of skills so that youth entering the labour market can take up opportunities in the labour market. The education system, including the post schooling sector should supply the youth with relevant skills and qualifications to take up meaningful work and remain relevant in the labour market. Ensure inclusivity in all interventions – particularly with reference to disability, barriers to access and economic vulnerability.	Facilitate skills development interventions specifically catered to the youth. Investigate pathways for just and equitable transitions from education to employment and decent livelihoods. Research completed on youth in the informal sector and current research on youth forming cooperatives should assist in this regard. Investigate opportunities to collaborate with youth on innovations and/or solutions for economic growth. Facilitate skills development to take up opportunities in the digital economy and upskill youth in line with new technological demands of industry. Monitor supply side barriers to take up opportunities in the mer sectors and put in place mechanisms of support to get youth to the appropriate level of skill.
Green Paper on the Social Economy	● The social economy promotes solidarity, social cohesion, social inclusion, self-organisation and self-sustainability.	1. Focus on local and regional economies which lead to entrepreneurial vitality and innovation. 2. Investigate measures to enable the Social Economy to benefit from the Fourth Industrial	The NMU-CIPSET Student driven association explores alternatives to formal work in the solidarity economy, it developed a curriculum framework and teacher guide to

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
	● Focuses on a people-centred approach to economic development based on the principles of sustainable economic activity that stimulates socially and environmentally responsible growth by leveraging and simultaneously building solidarity and social inclusion	Revolution (4IR) while promoting employment-creation as a response to potential job losses. 3. Address a demand-side challenge in the context of the youth labour market by providing alternative work opportunities. 4. Includes NEETs who are unlikely to be able to successfully access programmes which support transitions into formal sector employment. 5. Urban and rural contexts must be considered.	highlight the potential of the solidarity economy and cooperatives. The project also established a student driven association who will specialise in the green economy to support food production and perform maintenance activities using sustainable techniques – the best practice learnings from this project could be considered to support similar ventures for the youth in other provinces and specialist skills. Explore livelihood alternatives aligned to the social economy within the mer sector and assess the skills requirements within the value chain.
Trade Test Regulations, 2014 This regulatory Act is a single national artisan trade testing and certification system across all economic sectors	The Trade Test regulation focuses on any person to access a trade test at a nationally accredited trade centre ensuring the trade test is related to a relevant trade. The key other focuses areas are: ● Quality of trade tests ● Recognition of prior learning-single structured approach ● Trade testing M&E system	Compliance with the Act by: ● Receiving of Trade test fees information that is usually circulated before 31 March each year ● Pre-trade test evaluation, trade tests and RPL (RECOGNITION OF PRIOR LEARNING) toolkits for all listed trades must be reviewed by NAMB every five years with merSETA ● An accredited trade test centre must submit trade test results once a week to the NAMB and the SETA where the learner is registered in a format determined by NAMB in consultation with them QCTO.	Continuously review and be informed if any new circulars are published Establish working relationships/partnerships with NAMB and QCTO, specifically NAMB within the National Artisan Development (INDLELA) Chief Directorate
National Qualifications Framework Act, 2008 (Act No.67 of 2006)	The framework is designed to contribute to the full personal development of	Ensure that merSETA complies with the Act by: ● Becoming a key role-player by informing OQSF of latest mer sector skills that are key in the industry to ensure that the correct	Occupational standards are developed by a community of experts which merSETA could form part of to

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
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	each learner and the social and economic development of the nation at large. Key themes: ● National learning framework for learner achievements ● South African qualifications follow a correct criterion that is determined by the Minister, including a high standard internationally	qualifications are aligned to the required skills ● Linking 4IR related skills to meet the theoretical components of the qualifications	provide mer sector-related skills and research required for skills planning.
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	Impact on the merSETA is to ensure accredited service providers are provided with the latest and correct policies to ensure they follow the correct guidelines and procedures. This includes learner support materials, recording the learner information on the OQLMS etc.	Continuous support from merSETA to accredited SDPs (Skills Development Providers) The policy does state collaboration with SETAs, which merSETA could benefit from since merSETA has industry influence and support through Chambers for better skills planning.
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	Developing the literacy and numeracy skill gaps of artisans that have been historically disadvantaged.	MerSETA to ensure that all previous and prevailing artisan recognition of prior learning practices developed and implemented are replaced Ensure companies (especially contracted learners as defined in the policy) who receives levies from merSETA qualifies artisans in their artisan programs with recognition of attainment to increase their chances of employment	The PSET CLOUD project should support artisans to access opportunities by providing those semi-skilled trade workers with work opportunities. Employers should also be able to access those artisans registered on the PSET CLOUD for employment

Policy	Strategic Themes and Enablers	Impact on merSETA	merSETA Response & Recommendations
Qualification Framework) linked listed trades.			
The Generic National Artisan Workplace Data, Learner Grant Funding and Administration System Policy	Amendments made to the policy circular related to an apprenticeship and artisan development system	Impact on merSETA is the funding component of the apprenticeship. This includes paying the stipends directly to the employer and not the contracted learner. The apprenticeship and ARPL grant amounts are effective as of 1 April 2022	Working more closely with DHET to fully understand and comply with the latest amendments made to the policy

2.4 CONCLUSION

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 and skills development are key enablers of a thriving nation and the skills interventions highlighted aims to demonstrate the ways in which the merSETA has either implemented interventions or the potential interventions that the SETA can pursue in addition to what is already in place.

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. Successful outcomes will rely on good partnerships and collaboration across government departments, employers and the education and training sector. Additionally, the drivers' section in particular has highlighted the urgency of the need for interventions to overcome displacement and redundancy for the majority of workers in the sector who are low-skilled and semi-skilled (and often comprise of the vulnerable groups such as women and the youth). Therefore, collaboration and cooperation within partnerships will also require flexibility, agility and expedience in terms of meeting the demand in time and for its intended purpose. In the forthcoming chapters this SSP will unpack skills supply and demand issues and partnerships to further refine the types of skills, occupations and interventions that the mer sector will require to grow and remain a viable.

CHAPTER 3: EXTENT AND NATURE OF SUPPLY

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 2022 data provides information on hard to fill vacancies (HTFVs) based on a template provided by the DHET. Of all the WSPs submitted, 3857 companies filled out the skills requirements section pertaining to HTFVs. Most 3399 (88%) companies indicated that they did not have any HTFVs. The table below shows the number of vacancies by occupational group. In total only 458 companies indicated that they had hard to fill vacancies. In total they reported 3199 vacancies (almost double the number reported last year), of these 1714 vacancies remained unfilled (54%) indicating a true difficulty in filling vacancies. The majority of these were for skilled trades' workers, sales workers, and managers. 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, but they have the least opportunities for work. The vacancies required also require mid-level skills to high level skills. As seen in Chapter 2, many elementary and operator level occupations are at risk of being automated, therefore a dire need to re-skill and upskill workers.

Table 9: HTFV by Occupational Category

Level	OFO level	HTFV	%
1	MANAGERS	168	11.31%
2	PROFESSIONALS	145	9.76%
3	TECHNICIANS AND ASSOCIATE PROFESSIONALS	119	8.01%
4	CLERICAL SUPPORT WORKERS	56	3.77%
5	SERVICE AND SALES WORKERS	231	15.56%
6	SKILLED CRAFT AND RELATED TRADES WORKERS	630	42.42%
7	PLANT AND MACHINE OPERATORS AND ASSEMBLERS	72	4.85%
8	ELEMENTARY OCCUPATIONS	64	4.31%
Grand Total		**1485**	**100.00%**

The specific occupations for which the sectors 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. Overall, the reasons for difficulty in filling

vacancies are a lack of specific skills, a lack of experience and qualifications as demonstrated in the figure below. Most employers reported that applicants either do not have the right experience or they lack specific skills and qualifications.

Table 10: Hard to fill vacancies and Reasons

OFO	OFO code	Occupation	No. of vacancies	Lack right experience	Lack personal attributes	Lack specific qualifications	Lack specific skills	Equity	Remuneration	Location
1. Managers	2021-121901	Corporate General Manager	63	x		x	x			
	2021-122101	Sales and Marketing Manager	11	x	x		x			
	2021-122102	Sales Manager	22	x		x	x			
2. Professionals	2021-214101	Industrial Engineer	10	x		x	x	x	x	
	2021-214401	Mechanical Engineer	14	x		x	x	x	x	
	2021-215101	Electrical Engineer	13	x			x	x	x	
	2021-242101	Management Consultant	20	x		x	x			x
	2021-243301	Industrial Products Sales Rep	18	x		x	x	x	x	x
3. Technicians and Associate Professionals	2021-311301	Electrical Engineering Technician	12	x			x	x		
	2021-311401	Electronic Engineering Technician	12				x			x
	2021-311501	Mechanical Engineering Technician	13	x			x			
	2021-311801	Draughtsperson	12	x			x		x	
	2021-312201	Production / Operations Supervisor	12	x		x	x			
	2021-313501	Metal Manufacturing Process Control Technician	11				x			
	2021-333903	Sales Representative	11	x	x					
4. Clerical Workers	2021-422206	Call or Contact Centre Agent	10			x				
	2021-431102	Cost Clerk	18	x			x			
5. Service & Sales Workers	2021-522301	Sales Assistant (General)	14	x			x			
	2021-522302	Motorised Vehicle or Caravan Salesperson	190	x			x			
	2021-522303	Automotive Parts Salesperson	16	x		x	x			x
6. Skilled Craft and Related Trades Workers	2021-642701	Air-conditioning and Refrigeration Mechanic	13	x		x	x			
	2021-643202	Vehicle Painter	11		x	x	x			
	2021-651202	Welder	79	x		x	x			
	2021-651302	Boiler Maker	13	x		x	x			x
	2021-652201	Toolmaker	25	x			x	x	x	x
	2021-652301	Metal Machinist	19	x		x	x			
	2021-652302	Fitter and Turner	15	x		x	x			
	2021-653101	Automotive Motor Mechanic	167	x		x	x	x	x	x
	2021-653303	Mechanical Fitter	17	x	x	x	x			
	2021-653306	Diesel Mechanic	60	x	x	x	x		x	x
	2021-653309	Forklift Mechanic	12	x			x			
	2021-671101	Electrician	12	x		x	x			
	2021-671202	Millwright	35	x		x	x	x		

OFO	OFO code	Occupation	No. of vacancies	Lack right experience	Lack personal attributes	Lack specific qualifications	Lack specific skills	Equity	Remuneration	Location
	2021-671208	Transportation Electrician	14	x		x	x			
	2021-684904	Panelbeater	44			x	x			
7. Operators And Assemblers	2021-714101	Rubber Production Machine Operator	30			x	x			x
	2021-714208	Plastics Manufacturing Machine Minder	12	x			x			
	2021-718905	Engineering Production Systems Worker	13	x		x	x		x	
8. Elementary	2021-832910	Component Fitter	27	x			x			x
	2021-862919	Mechanic Trade Assistant	26			x	x			

3.2.2 Skills Gaps in the sector

In terms of the skills gaps, 4567 companies provided information on skills gaps for occupational categories. The top 5 skills gaps for each occupational category is demonstrated in the figure below.

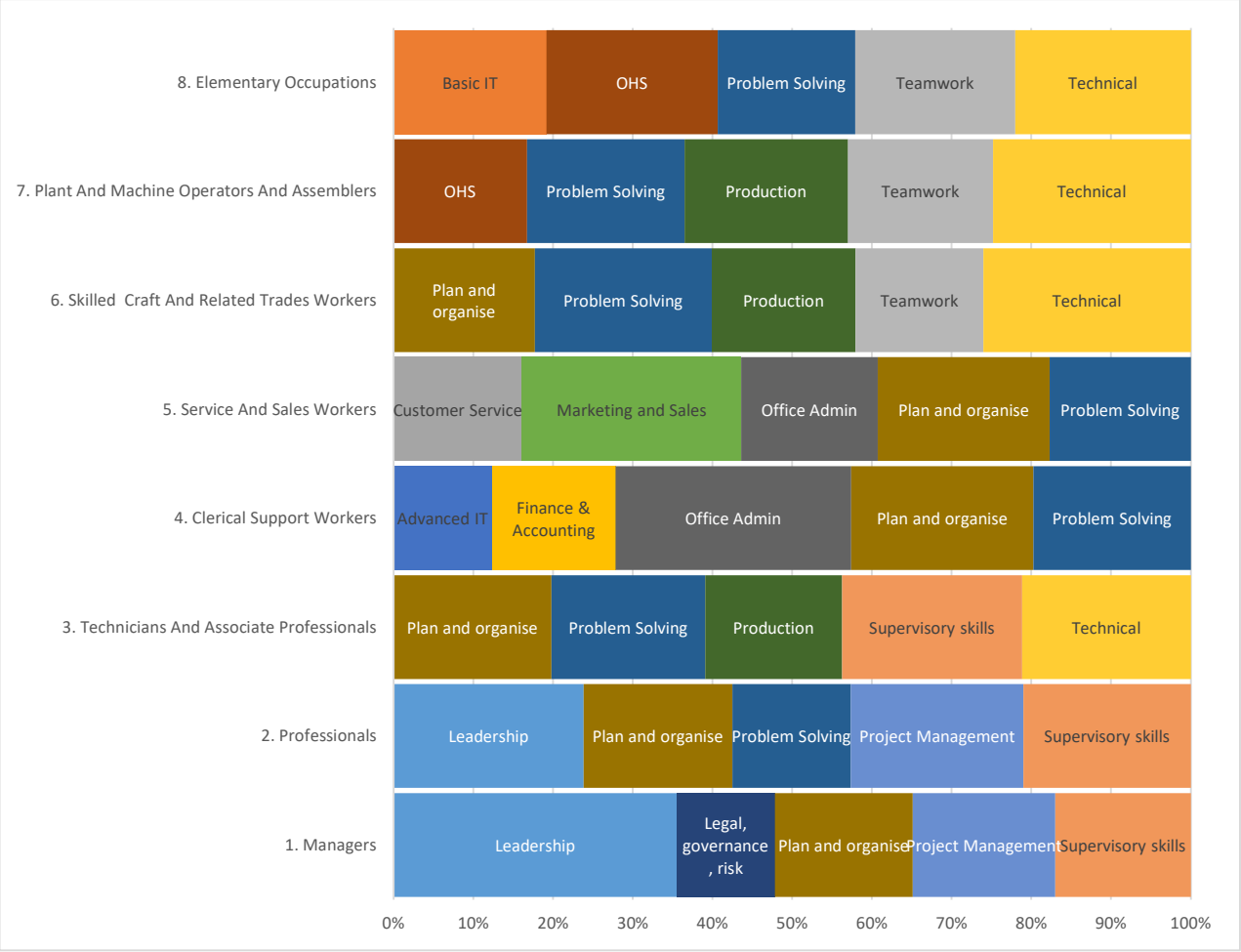


Figure 28: Skills Gaps

3.2.3 Reasons for skills gaps

The main reasons for skills gaps is new technology (25%), new work processes (25%), lack of experience (19%), new products (18%) and lack of relevant qualifications (14%).

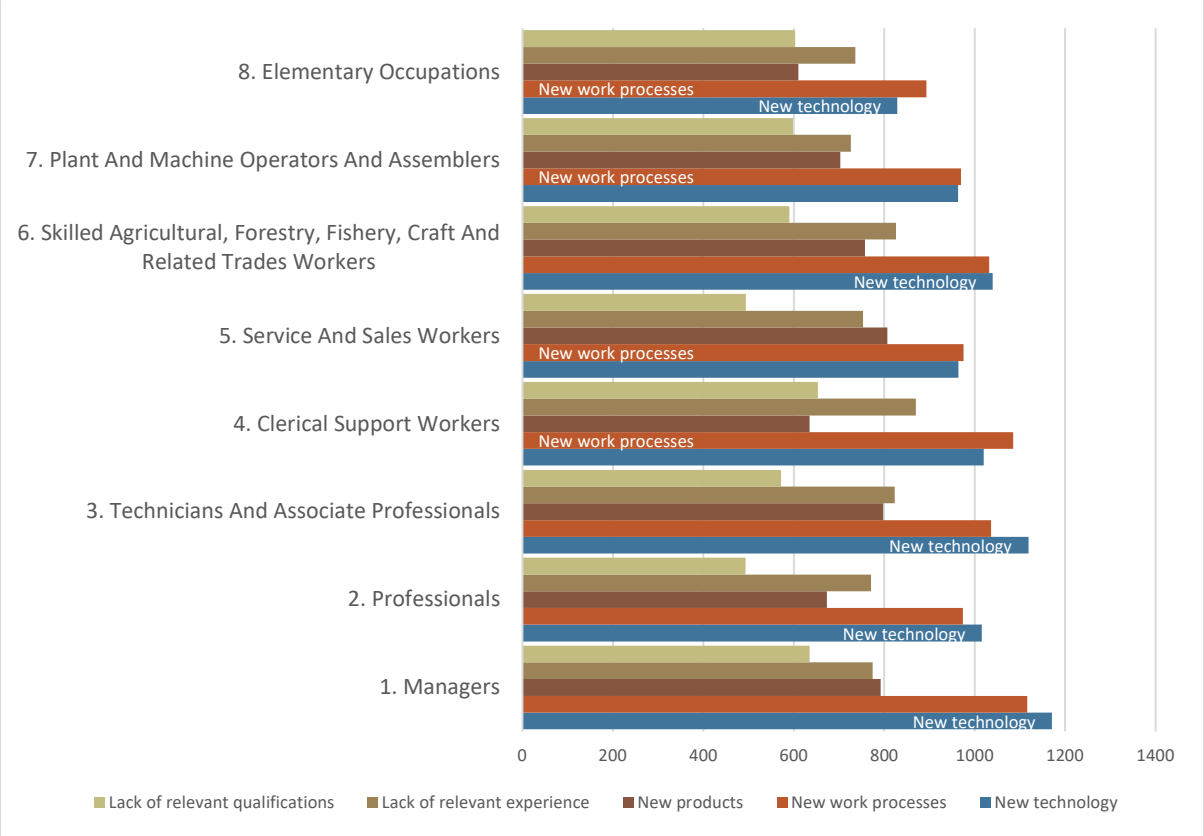


Figure 29: Reasons for skills gaps

New technologies seem to be more prevalent gaps for managers, professionals, technicians, and artisans. New production or work processes are prevalent in clerical work, service and sales, operator, and elementary positions.

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 manufactruring 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. Although, the root of unemployment is not only a lack of jobs; a key underlying issue is the inadequately educated workforce which is the main challenge of the post-school education and training. From a human capital perspective, education and training improve

the productivity of individuals. In this sense, it is important to consider the education levels and training of the population when evaluating skills supply.

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.

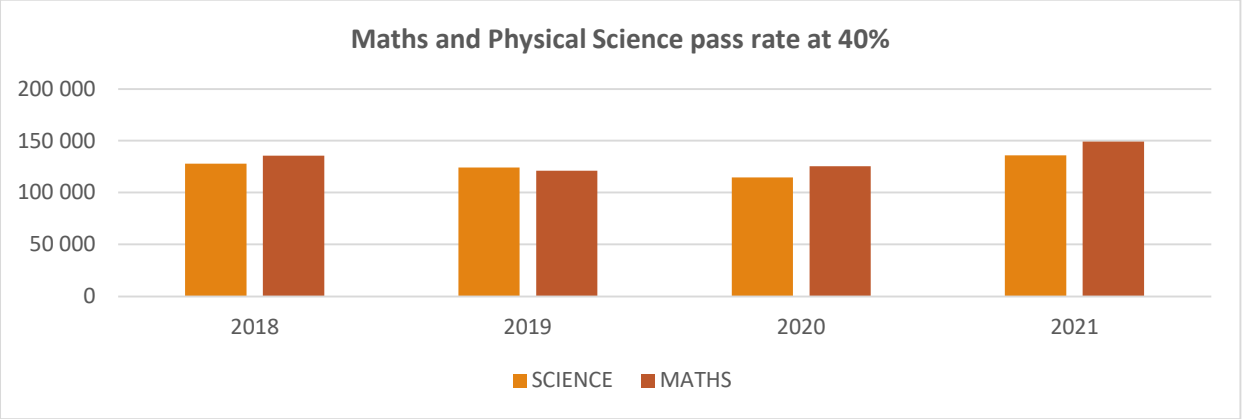


Figure 30: Maths and Physical Science pass rate 2018-2021

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.

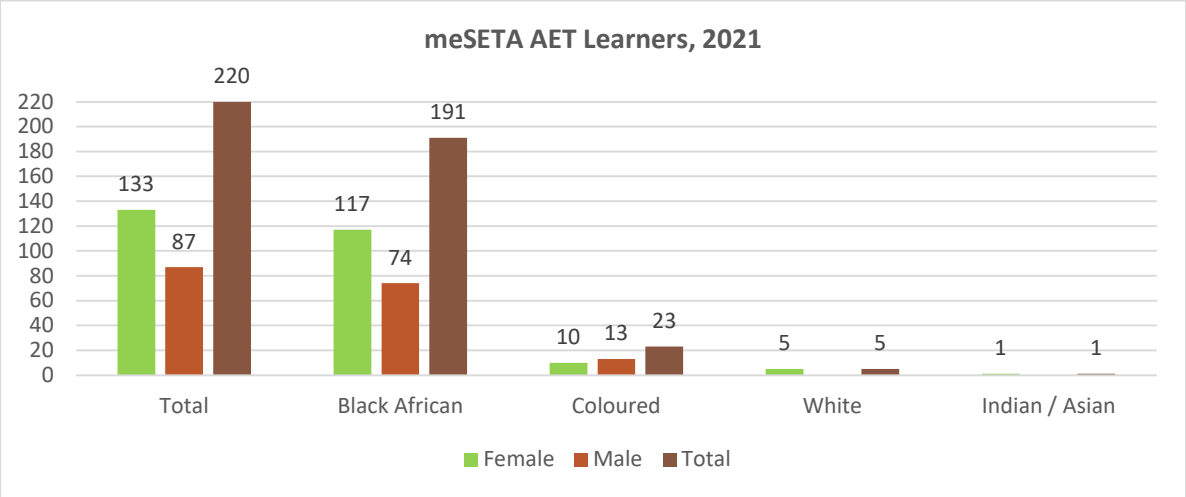


Figure 31: meSETA AET Learners, 2021

3.4.2 YOUTH UNEMPLOYMENT

Minister Blade Ndzimande (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 grapghic 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.

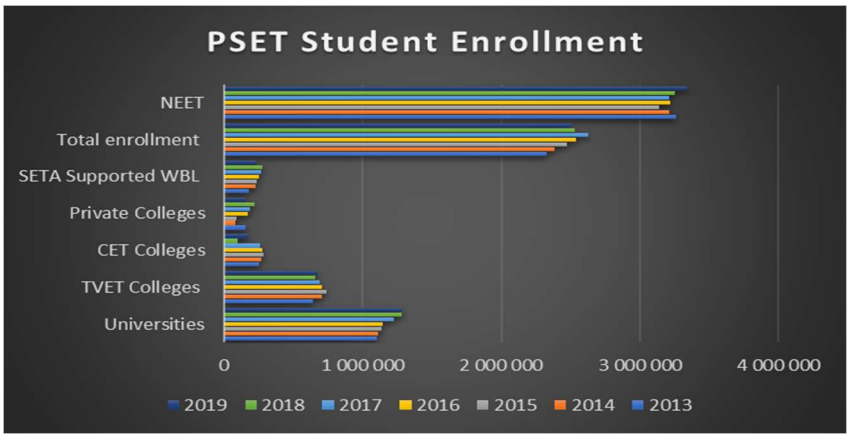


Figure 32: NEET enrolment 2013-2019

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 professional and managers. The field of study however indicates that more men graduate in SET and business fields than women and that women tend to be represented in education and other humanities.

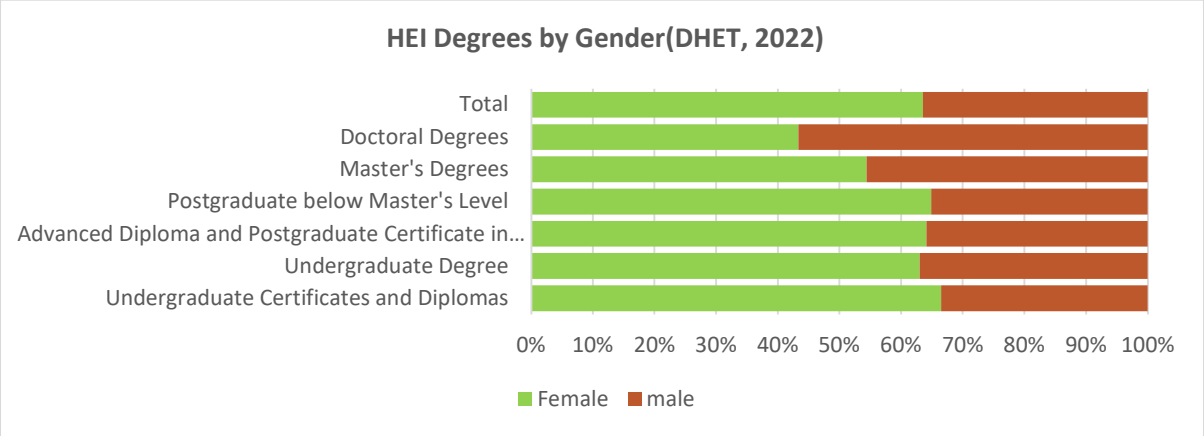


Figure 33: HEI Degrees by Gender (DHET, 2022)

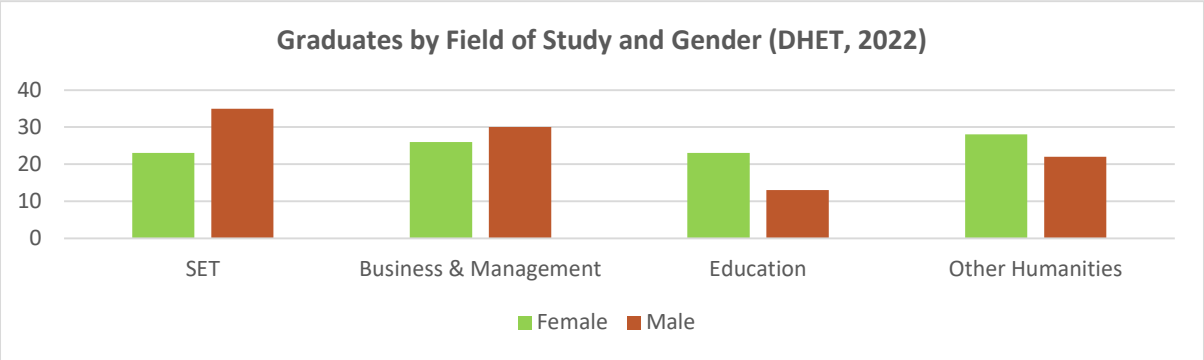


Figure 34: Graduates by Field of Study and Gender (DHET, 2022)

In terms of the trades, the DHET report on training of artisans also shows a bias towards men. Only 3 476 (34%) women enrolled for apprenticeships in 2020 compared to 6 826 (66%) men. The graphs below depict the statistics for priority trades entered and completed. In terms of female participation, the gender is underrepresented across all trades with proportionally more women entering plumbing and electrician trades. In terms of completions, proportionally more women complete the electrician trade. From the merSETA data we see a similar characteristic in terms of gender dynamics, however women are proportionally higher represented in welder, electrician and toolmaker trades.

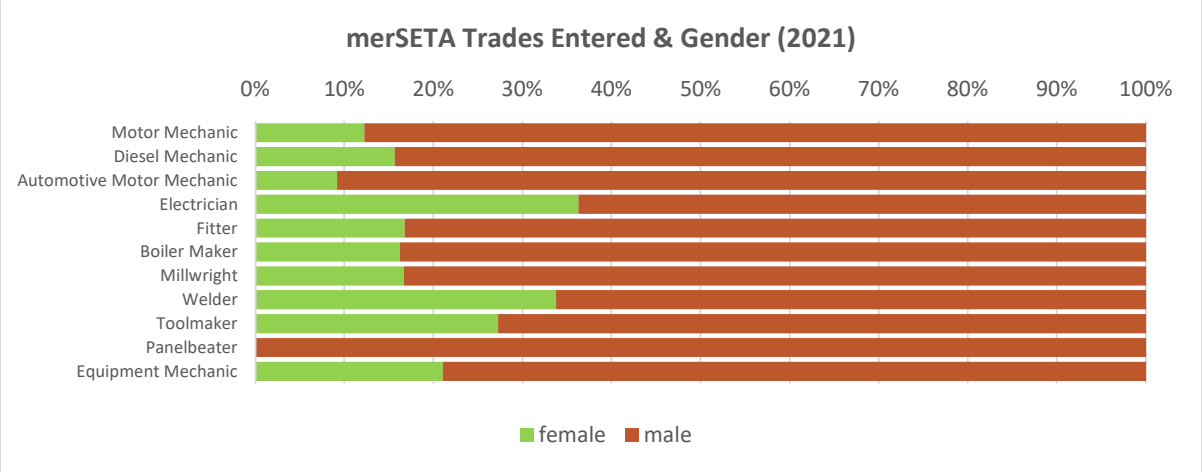


Figure 35: merSETA Trades Entered & Gender (2021)

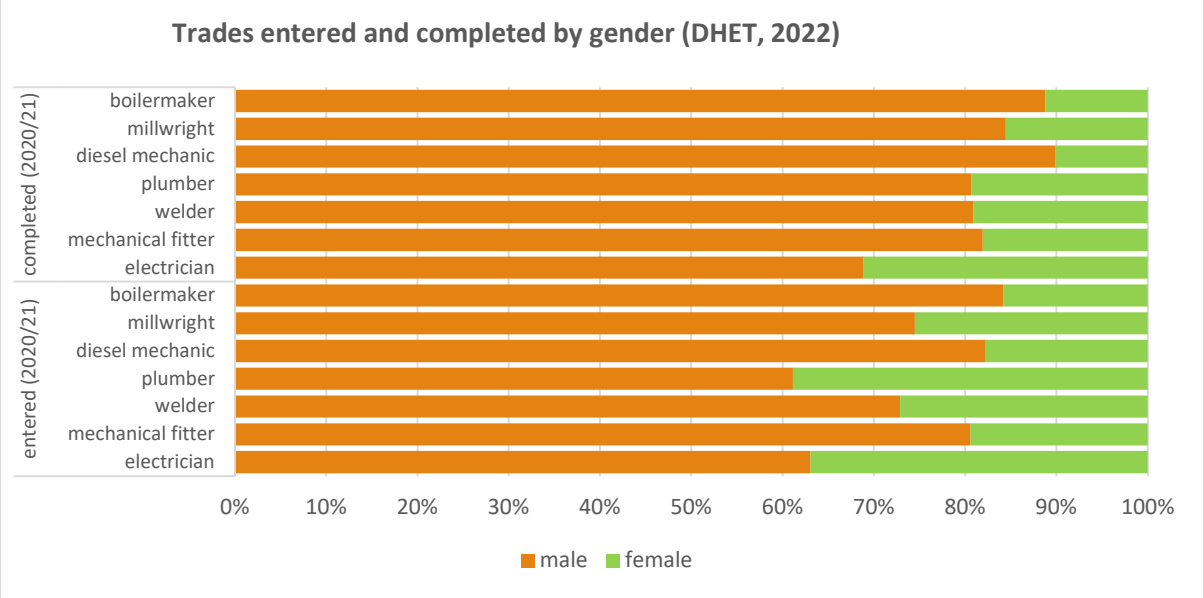


Figure 36: Trades entered and completed by gender (DHET, 2022)

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 2020/21 financial year, the merSETA supported almost 10 668 unemployed learners through various learning interventions. Subsequently, as the leaders in closing skills gap the merSETA in the period of 2014/15-2020/21 has successfully certified 19208 learners into Artisan status and further successfully certified 21036 learners in NQF level 1-4 learnership programmes (QMR, 2021).

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. Furthermore, apprenticeship/artisan work is skilled work in that knowledge connects tasks into procedures, and there is a link between the understanding of isolated components into a whole functional system. Just under 2000 artisans completed in the 2021/22 year. The graph below highlights the types of apprenticeships completed in the 2021/22 year.

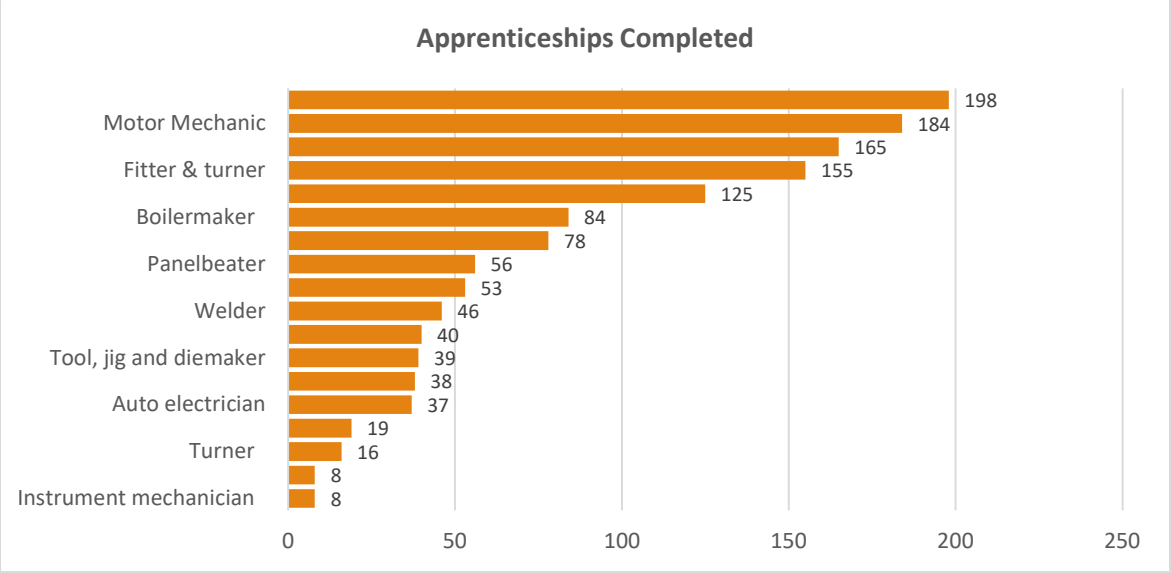
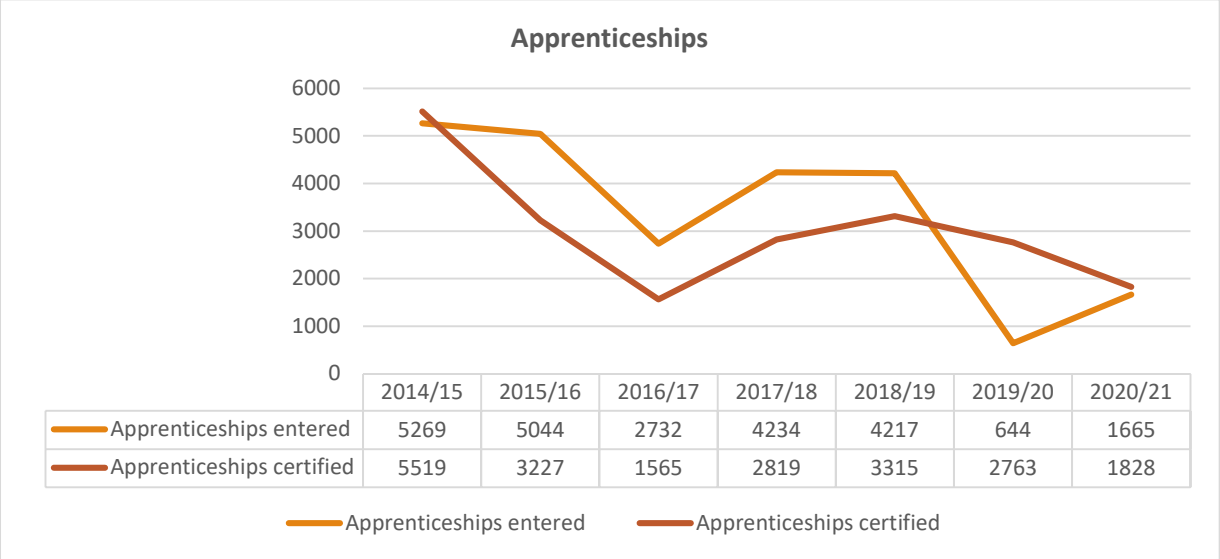


Figure 37: Types of Apprenticeships Completed (merSETA, 2021)

The graph below details the apprenticeship trends from 2014 to 2021. Notable, 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.



	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
Apprenticeships entered	5269	5044	2732	4234	4217	644	1665
Apprenticeships certified	5519	3227	1565	2819	3315	2763	1828

Figure 38: Apprenticeships (merSETA, 2021)

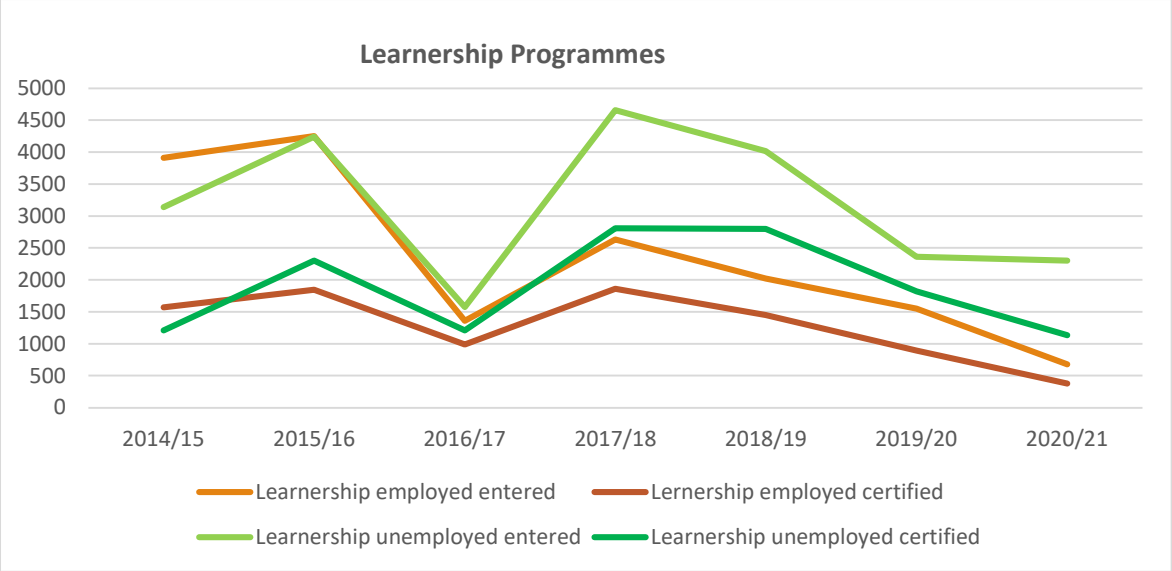


Figure 39: Learnership Programmes (merSETA,2021)

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 setor. The figure below shows workers and unemployed works entered and certificated between 2014/15- and 2020/21. It seems that more workers are enrolling and becoming certificated in the latter years demonstrating higher demand and higher success rates, this could be attributed to employers prioritising the upskilling of workers due to changing work processes and new technologies despite the trends tapering off since the onset of COVID in 2020, employers have reported that workers need a more diverse skills set to keep pace with skills in demand.

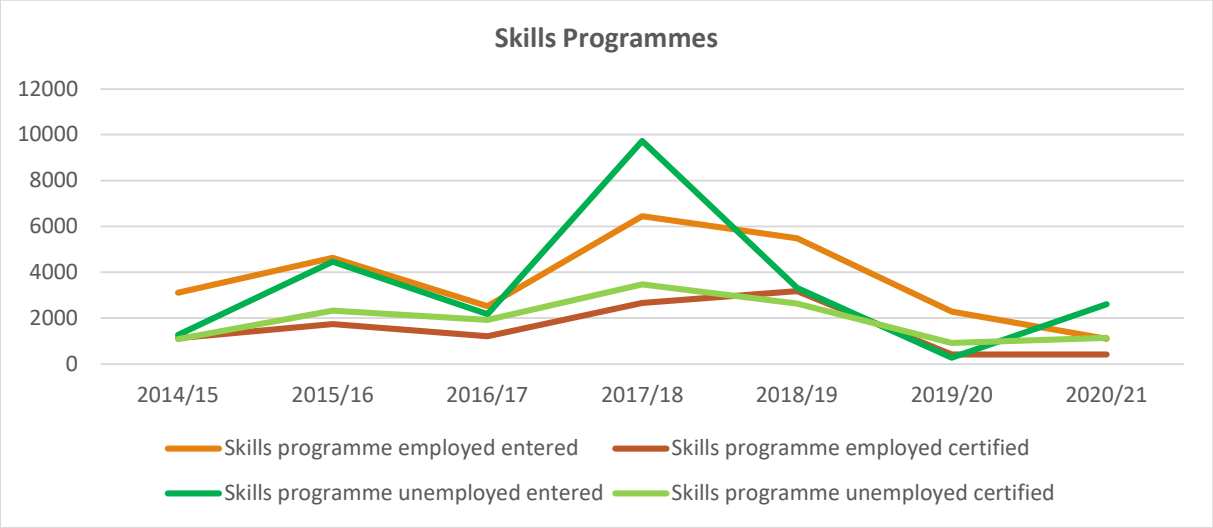


Figure 40: Skills Programmes (merSETA, 2021)

3.5.1 SECTORAL PRIORITY OCCUPATIONS

3.5.1.1 METHODOLOGY

The methodology employed for this iteration of the SSP is still mostly the same as reported in the previous years SSP in which skills lists resulting from the COVID-19 research; the skills atlas, green skills, ERRP and WSP analysis are collated. 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 as well as WSP analysis.

The interventions associated with the skills and occupations prioritised arises out of the merSETA QMR, Chamber Learner Data and WSP data. In addition to the Skills priorities, this year the merSETA has included a list of occupations that are at risk of redundancy due to automation – this is indicated on the final list of priority skills and would require sector input in terms of reskilling and upskilling[18]. The research tea m 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 HTFV analysis, primary research and ERRP skills lists for manufacturing, we arrive at the following priority skills list. 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 11: merSETA Skills Priorities

Rank	2021 OFO	Occupations	ACM	Auto	Metal	Motor Retail	New Tyre	Plastics
1	2021-653101	Automotive Motor Mechanic	x		x	x	x	
2	2021-214101	Industrial Engineer	x	x	x	x		x
3	2021-652301	Metal Machinist	x		x	x		x
4	2021-653306	Diesel Mechanic	x		x	x		
5	2021-671202	Millwright	x		x	x		x
6	2021-132107	Quality Manager	x		x	x		x
7	2021-243301	Industrial Products Sales Representative	x		x	x		
8	2021-652201	Toolmaker	x		x			x
9	2021-653303	Mechanical Fitter	x		x	x		x
10	2021-214401	Mechanical Engineer	x	x	x			x
11	2021-718905	Engineering Production Systems Worker	x		x	x		x
12	2021-714101	Rubber Production Machine Operator	x			x	x	
13	2021-652302	Fitter and Turner	x		x	x		
14	2021-643202	Vehicle Painter	x		x	x		
15	2021-671208	Transportation Electrician	x		x	x		
16	2021-226302	SHEQ Practitioner			x	x	x	x
17	2021-651202	Welder	x		x	x		
18	2021-121901	Corporate General Manager		x	x	x		
19	2021-122102	Sales Manager			x	x	x	x
20	2021-651302	Boiler Maker	x		x			x

In consultation with the merSETA Chamber committees, the priority skills were confirmed as a reflection of industry requirements. It is however necessary to expand on why we see similar skills year on year and also the types of qualifications required. Overall, the Chamber agree that it is not necessarily the full qualification required or these professions (although there are instances in which this is the case), but rather parts of the qualification or skills interventions to augment skills and skills sets. The notion of life-long learning is fundamental to empowering individuals to obtain opportunities in the workplace and the labour market but ultimately the ability to grow one's portfolio of skills and qualifications must be easily accessed and also recognised (accessibility to training is recognised as a threat to autonomy in career paths and without it, it could exacerbate structural inequalities which is detrimental to individual and economic growth). To this end the

[18] The indication of redundancy will be added for the final SSP due on 1 August. In addition, the list presented in this SSP still needs to be workshopped and confirmed with sector stakeholders.

merSETA and its Chambers have recognised the need to empower learners with skills fit for the future and fit for agility. This requires an approach to skills interventions that is dynamic and embraces digital learning. The merSETA will therefore implement 3 approached to interventions in this regard: the first being an online learning platform to simulate hybrid classrooms with teachers, learners and different subjects, the second being a flexible digital learning pathway using an app to guide learners through curricula and obtaining micro-credentials (this is embedded in the ICT4APP project for apprenticeships) and the third being the application of AR (augmented realty) and VR (virtual reality) teaching and learning platforms. These approached are not only dynamic, but they also assist with the lack of workplaces due to company closures and reduced capacity in companies to take on WBL learners.

At the time of compiling the Priority Skills List additional research was still underway within the Chambers and further consultations were being concluded. As such it should be noted that the ACM Chamber has further noted that there are wo critical occupations in demand for the auto components manufacturing sector, being Mechatronics Engineer and PLC technician. Similarly, the Plastics Chamber highlighted the need for Plastics Welders whose skills differ from that of a metals welder. These considerations will be taken into account in reviewing additional research and revision of the priority skills analysis.

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

The White Paper on Post School Education and Training (2013) calls for partnerships to strengthen the linkages between education and training reform and policy design. Therefore, the delivery of education and training can be best achieved through strategic partnerships and the merSETA utilises partnerships as the vehicle through it is able to fulfil its skills development mandate. Furthermore, the merSETA partnerships are funded through discretionary grants and are therefore subject to the conditions of the discretionary grants and projects policy. Compliance is required related to the scope and the legislative and regulatory requirements of all its discretionary programmes, projects, and partnerships.

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).

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 SETA's 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.

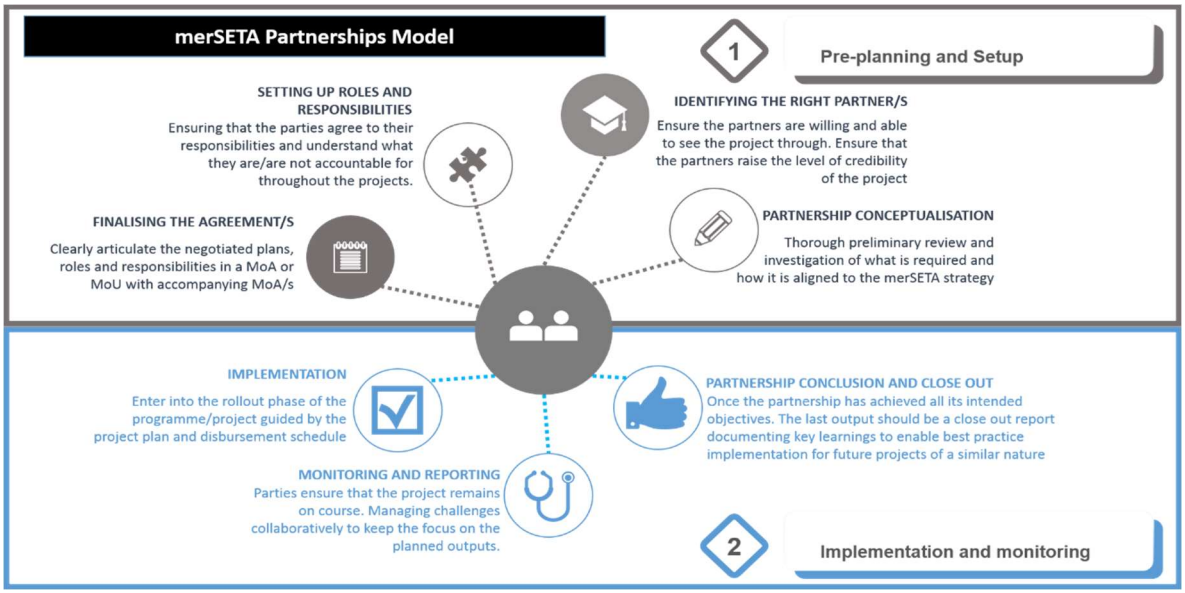


Figure 41: merSETA Partnerships model

Subsequently, outcome 2 of the NSDP 2030 maintains that SETAs should link education and workplaces. Core to the achievement of this objective is a collaborative or partnership approach that improves the linkages of universities, colleges, and employers which is aligned with the merSETA' s partnership model approach which delivers on the organisational mandate and ensures high performance through the support of innovative projects, research, and skills development. Therefore, since its inception, the merSETA has done well in terms of fulfilling its mandate through collaboration aimed at amplifying stakeholders being key to successfully meeting skills development targets.

Therefore, the merSETA partnerships are frequently assessed for relevance and efficacy by ensuring that there is adequate capacity to keep the partnership afloat from both the merSETA side and the service provider. In addition, the merSETA utilises the below model across all partnerships to ensure successful outcomes of a project and as a way of mitigating the risks of unsuccessful partnerships. Subsequently, the merSETA ensures that the service providers have the necessary capacity to deliver on the stipulated SLA requirements.

Furthermore, the merSETA partnerships model begins with the identification of the right partnerships as a key factor for the different type of partnership being entered, delineation of the roles and responsibilities for both parties and maintenance of constant and open communication to mitigate potential risks that can impede the achievement of intended objectives. In addition, is it imperative for the merSETA to have a standard clause inserted to all partnerships agreements templates to ensure the success of the partnerships.

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 merSETA has entered into partnerships with various institutions to advance sector development and growth. While merSETA considers all its partnerships a success due to objectives being achieved, this section

presents a summary of partnership arising from current partnerships in the merSETA system. As of 31 March 2022. These partnerships are structured into the following typologies:

- Partnerships with TVET Colleges
- Partnerships with Universities
- Partnerships with research institutions
- Partnerships with public/private institutions
- Partnerships with international institutions

The merSETA views partnerships as critical mechanisms to safeguard the delivery of the skills development mandate. These partnerships are thus intended to promote and sustain interaction between industry and training institutions to ensure that curricula reflect the changing needs of a dynamic industry.

In addition, the below table illustrates existing partnerships and programmes supported by the merSETA. Furthermore, the partnerships contractual arrangements and their implementation are monitored at high level by the Finance and Grants Committee, a sub-committee of the Accounting Authority. An overview of the number of partnerships by type of partner is illustrated in table 13 below.

Table 13 demonstrates that while there are many partnerships in place, more can be done to leverage international best practice through partnerships with skills networks across the globe. In addition the role of CET colleges and TVET colleges in communities and townships in particular should be assessed in order to foster local economic empowerment and growth.

Table 12: Type of Partner and Purpose

Purpose	Type of Partner								
	CET	Govt dept	HEI	Inter-national	PSET	Research	TVET	Total	Total %
Skills interventions		18	26	2	12		65	**123**	**74%**
Research						13		**13**	**8%**
Qualification/Curriculum Development					10		2	**12**	**7%**
Industry development and growth			5		2			**7**	**4%**
4IR related			2		3			**5**	**3%**
Supporting community based skills development	2							**2**	**1%**
Lecturer Development			2					**2**	**1%**
TBC					1			**1**	**1%**
Career Awareness			1					**1**	**1%**
Grand Total	**2**	**18**	**36**	**2**	**28**	**13**	**67**	**166**	**100%**
	1%	**11%**	**22 %**	**1%**	**17%**	**8%**	**40%**	**100%**	

*** unclassified partner does not mean the partner is unknown, merely that the organization type was not classified.*

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): a legal agreement that is bilateral or multilateral, written and binding with a common intent. It establishes 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.

Partnership is often clustered by the type of partner, however on looking at the partnerships at the merSETA, it emerges that there are two main intentions for partnerships. First is the intention to develop skills for a skilled and capable workforce, which sees the SETA partnering with TVET Colleges, Higher Education Institutions, Government Institutions and International Agencies to develop skills for a mer sector that is responsive, adaptable and agile. Second is the intention to develop research and innovation projects in support of labour market intelligence and skills planning, innovations for skills development and sectorial drivers in line with global trends and advanced technologies. For the latter, partners include private consultants and specialised entities housed within universities and other publically funded institutions.

4.3 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.

4.3.1 TVET PARTNERSHIPS

TVET Colleges are critical for the development of skills to strengthen the economy. A recent tracer study on TVET college graduates indicated that most graduates (over 60%) were absorbed by employers (merSETA, 2020). They accommodate many learners and are tasked with supplying high quality skills to the labour market. They rely on assistance to reach their potential in terms of improved capacity and quality. These institutions are also the vehicle through which skills to support infrastructure projects are to be developed, while the Centres of Specialisation act as key partners in delivering identified occupational programmes.

The main purpose of these partnerships is to provide NCV learners with work experience and qualifications related to the trades, there are currently 66 agreements in place with 30 TVET colleges for this purpose.

For these NCV partnerships, the merSETA has partnered with the following colleges:

Table 13: TVET College Partners (NCV)

TVET Colleges (NCV learners)	
Boland TVET College	Letaba TVET College
Capricorn TVET College	Mopani South East TVET College
College Of Cape Town TVET	Motheo TVET College
Eastcape Midlands TVET College	Nkangala TVET College
Ehlanzeni TVET College	Northern Cape Urban TVET College
Ekurhuleni TVET College	Northlink TVET College
Elangeni TVET College	Orbit TVET College
False Bay TVET College	Sekhukhune TVET College
Gert Sibanda TVET College	Taletso TVET College
Goldfields TVET College	Tshwane TVET College
Ikhala TVET College	Umfolozi TVET College
Ingwe TVET College	Vhembe TVET College
King Hintsa TVET College	Vuselela TVET College
King Sabata Dalindyebo TVET College	Waterberg TVET College
Lephalale TVET College	West Coast TVET College

The merSETA has also partnered with TVET colleges in an attempt to integrate digital skills knowledge into the current TVET college programme offerings to turn them into institutions of choice for school leavers. In addition, TVET partnerships promote the quality and responsiveness of TVET teaching, learning and assessments, by providing students with 4IR training and equipping lecturers with required pedagogies to provide online teaching and supporting students. They also facilitate access to learning opportunities so that TVET graduates can either

gain artisan status or become employable, this includes Recognition of Prior Learning (RPL). and sophisticated technologies. To these ends the merSETA has 8 partnership agreements with the following colleges:

Table 14: TVET Partnerships

Name of organisation	Scope of Work
West Coast TVET College	The implementation of the new occupational qualification registered by the QCTO as the "Solar Photovoltaic"
Tshwane TVET College	
Ekurhuleni TVET College	TVET 4.0 Technical Mentor Development
False Bay TVET College	
Vuselela TVET College	
Eastcape Midlands TVET College	
Goldfields TVET College	

The partnerships outlined above mainly support Work Integrated Learning placements, but also provide for other workplace-based learning opportunities, such as learnerships and internships. Furthermore, they respond to the NSDP Outcome 2: Linking education and workplace. the merSETA plays a key role in proactively initiating these partnerships which in turn accelerates the realisation of the White Paper for Post-School Education and Training goal which states that TVETs need to enrol 700,000 to 2.5 million students by 2030. Furthermore, the merSETA will continue to leverage partnerships with CET colleges particularly for skills related to automotive mechanics, welding & maintenance and repairs.

4.3.2 PARTNERSHIPS WITH HIGHER EDUCATION INSTITUTIONS

As per the NSDP, SETAs have a pivotal role to play in bringing the education fraternity and industry closer together. Therefore, forging mutually beneficial ties with institutions contribute towards addressing industry occupational shortages and skills gaps. While bursaries have been the main partnering mechanism, key developmental and transformational imperatives remain at the heart of the below mentioned partnerships.

In addition, as a SETA grounded in vocational training, the merSETA has used HEI partnerships to support lecturer development for TVET colleges, provide experiential learning and skills for the 4IR. Learners from previously disadvantaged backgrounds become better positioned to acquire high-level skills in programmes such as Honours, Masters and PHDs, which enables them to compete with those from more affluent backgrounds.

The table below lists all HEI partnerships and scope of work, these comprise a total of 37 agreements across 17 HEIs:

Table 15: HEI Partnerships

HEI Name	Value
Cape Peninsula University of Technology	Provide access to skills development opportunities in line with national and sectoral priorities
	Providing workplace learning and experience for better labour market outcomes
Central Univ. Of Technology Innovation Services	Providing bursaries to improve learner access to skills interventions
	Providing workplace learning and experience for better labour market outcomes
Durban University of Technology	Providing workplace learning and experience for better labour market outcomes
Mangosutho Univ Of Technology	Provide access to skills development opportunities in line with national and sectoral priorities
	Providing workplace learning and experience for better labour market outcomes
Nelson Mandela University (NMU)	Industry related R&D
	Lecturer Development
	Provide access to skills development opportunities in line with national and sectoral priorities
	Providing bursaries to improve learner access to skills interventions
North-West University (NWU)	Industry related R&D
Rhodes University	Provide access to skills development opportunities in line with national and sectoral priorities

HEI Name	Value
Tshwane University of Technology	Development in line with the 4IR
	Provide access to skills development opportunities in line with national and sectoral priorities
	Providing workplace learning and experience for better labour market outcomes
University Of Cape Town	Industry related R&D
	NCV learners
	Provide access to skills development opportunities in line with national and sectoral priorities
University Of Johannesburg	Industry related R&D
	Provide access to skills development opportunities in line with national and sectoral priorities
University Of South Africa	Providing workplace learning and experience for better labour market outcomes
University Of the Free State	Provide access to skills development opportunities in line with national and sectoral priorities
University Of the Western Cape	Development in line with the 4IR
	Lecturer Development
University of the Witwatersrand	Provide access to skills development opportunities in line with national and sectoral priorities
University Of Venda	Industry related R&D
Vaal University of Technology	Provide access to skills development opportunities in line with national and sectoral priorities
Walter Sisulu University	Career Awareness

4.3.3 PARTNERSHIPS WITH GOVERNEMENT INSTITUTIONS

The merSETA partners with government departments for skill development purposes to develop artisans and up-skill the youth and marginalised individuals such as prisoners, which is aimed at the provision of job opportunities and the transformation of the agenda. For this reason, some of the partnership projects focus on skills that will enable people to start their own businesses and skills in support of the need for entrepreneurial endeavours in the sector.

The table below details government partnerships and their scope of work, these represent 19 agreements across 13 institutions.

Table 16: Partnerships with Government Institutions

Department Name	Scope of Work
Depart of Correctional Services	Funding of parole awaiting offenders on Skills programmes
	Skills development of offenders in different facilities
	Training of 40 Inmates
Office of the Premier EC	Funding of Skills Programs, Artisans and candidacy skills development interventions.
Economic Development, Tourism and Environmental Affairs	Artisan Recognition of Prior Learning (ARPL)-450
Free State Department of Education	Training of Engineering Graphic and Design
Gauteng Depart-Education	Discretionary Grant
Limpopo Department of Public Works, Roads and Infrastructure	Artisan recognition of prior learning
Mpumalanga Dept of Education	Apprenticeships & Bursaries
National Dept of Public Works-Merseta Funded	Apprenticeship of learnership level 2-4 ending in a trade test program-151 learners
Office Of the Premier Free State	Funding of Skills Programs, Artisans and candidacy skills development interventions.
Office of the Premier Limpopo	Funding of Skills Programs, Artisans and candidacy skills development interventions.
	Development of 100 apprentices and 70 interns in the manufacturing and engineering sector

Department Name	Scope of Work
Office of the Premier North-West	Training of Artisan
Office of the Premier KZN	Skills & Apprenticeships
Office of the Premier Free State	Apprenticeships, Internships, Skills Programs
	Funding of Skills Programs, Artisans and candidacy skills development interventions.

4.3.4 RESEARCH AND INNOVATION PARTNERSHIPS

The merSETA research agenda is guided by the NSDP in terms of its support for skills development and targeted interventions to stimulate economic growth. At the merSETA, decision making is guided by credible research. Overall, research is executed through organisation-wide efforts; however, the Strategy and Research Division within the merSETA is at the helm of research collaborations, partnerships, and projects. The table below demonstrates research through a partnership delivery model to inform skills planning, sectoral trends and innovations which will help the sector keep pace sectoral needs and 4IR in terms of its service delivery offering

Since the emergence of 4IR, the merSETA Sector is witnessing a major shift in the higher education landscape. Thus, the merSETA understands that partnering with research institutions who have high expertise is of paramount importance. Furthermore, by partnering with research institutions, the merSETA has the developed meaningful collaboration with the below institutions. These partnerships represent 13 agreements across 10 institutions.

Table 17: Research and Innovation Partnerships

Name of Institution	Scope of Work
Human Sciences Research Council	Understanding the skills development needs of Black Industrialists
Mining Equipment Manufacturers of South Africa (MEMSA)	Skills for 4IR
National Union of Metalworkers	Chamber Research-Auto sector
	Chamber Research-Motor sector
Nelson Mandela University	Learning work through a student-driven association
Plastics Federation of South Africa (PLASTICSA)	Chamber Research
Redflank Solutions (Pty) Ltd	Financial and Non-financial Support (evaluation project)
	Learner Contracts Termination (evaluation project)
	Lecture Development Study (evaluation project)
SEIFSA	Chamber Research-Metal Sector
Trade & Industrial Policy Strategies	Anticipation Skills and Labour for mer-Sectors
University Of Cape Town	Economic Complexity
Urban-Econ Development Economists Pty Ltd	Urban-Econ Development Economists pty ltd

4.4 SUCCESSFUL PARTNERSHIPS AND CHALLENGES

The table below demonstrates the successes and challenges experienced in partnerships. We have clustered the partnerships by type to highlight successes and challenges. While institutions do have their individual strengths and weaknesses, for the purpose of analysis it is best to analyse the merSETA experience and raise the overall findings rather than pinpoint any particular organisation.

Fundamentally, successful partnerships are strategic and meet a multiplicity of objectives given the complexities presented by 4IR and Covid-19 and the impact on skills development. Successful partnership link different objectives identified in the SSP to achieve the merSETA strategic outcomes. As a result, partnership challenges within the merSETA will continue to be assessed to ensure that employers have the necessary capacity to deliver on the SLA requirements as a way of mitigating risks of unsuccessful partnerships and support will be offered through the support of programme Monitoring and Evaluation, from inception to completion

Table 18: Partnership Challenges & Successes

Partnership Type	Partnership Challenges	Partnership Successes	Mitigation of Challenges
TVET	It was raised in discussions with merSETA stakeholders both internal and external that: • Not all TVET colleges have the same ability to ensure successful implementation. • There is a concerted effort to work in partnership with colleges but this proves to be challenging, particularly in recent time due to the COVID pandemic and economic uncertainty. • There is still a weakness in terms of partnering with employers to open up their workspaces as training spaces - exacerbated by the closure of companies in recent times.	• A key to success is to work with both TVET Colleges and Employers to review their needs and implement effective interventions. • Working with employers as partners for successful WBL. • The ability of the SETA to support infrastructure and equipment has raised the quality of education somewhat and provides more scope to partner. •	• Clearly articulate TVET college and employer challenges - particularly with regards to infrastructure and resources required for successful implementation of interventions. • Seek alternatives to meet the workplace component, particularly in terms of technologies such as simulations and virtual learning. • Implement Learner support and management from enrolment to completion and work placement must be carefully managed and monitored. • Uptake of SETA programmes must be assessed to better understand demand and supply and plan accordingly - evaluation of programmes is key.
HEI	• Like TVET colleges, uptake of courses/qualifications can be problematic and recruiting learners may not yield successes. • Conceptualisation and clarity on required outcomes and outputs are not always in place resulting in mismatch between the HEI and SETA expectations.	• The workplace component is becoming ever more important with learners requiring work placements to gain practical experience. Employer partners are key for success	• As the 4IR is becoming a reality, international best practice is required with regards to the types of interventions offered. • 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. • Clearly conceptualise and articulate the needs of the partnership
Government partnerships	• Lack of traction with regards to implementation. • Capacity to fully support the project/programme remains problematic.	• Effective project management has been a to key as well as ensuring that partners are committed to achieving the objectives of the partnership.	• A demand led approach may not always yield successful outcomes unless the SETA works with the partner to 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.
Research - merSETA commissioned	• Time delays and availability of key respondents may delay project completion. • COVID-19 delayed	• Good technological interventions and tools to assisted with connecting the required parties. • Video and visual resources assist providers in better	• Larger projects with new innovations and a bigger scale are possible due to increased capacity and teamwork. • Chamber management and

Partnership Type	Partnership Challenges	Partnership Successes	Mitigation of Challenges
	fieldwork as providers and respondents adjusted to online interviews, focus groups and workshops.	understanding the sector and their processes even though they could not meet on site.	coordination assists the smooth running of projects.
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.	

4.5 PLANNED PARTNERSHIPS

Partnerships will be the main mechanism through which the SETA is able assist government priorities raised in the ERRP and the linked Skills Strategy. The focus on skills is wide-ranging and entails an optimisation of the regulatory environment, structural reforms to boost education and skills development, and a concerted effort to build the skills base required by our changing economy ahead of global technology advances and the precarious nature of work and the labour market.

Structural inequalities are prevalent in the sectors; therefore, re-aligning some of the objectives detailed in the partnerships MoAs was required to focus on the structural transformation of the sector. Equally important, the merSETA will continue to prioritise special project partnerships which are aimed at maximising the provision of job opportunities and the transformational agenda for historical disadvantaged townships and rural areas. Furthermore, the merSETAs' new partnerships will continue to prioritise innovations with respect to advanced skills development methodologies, micro-credentialling and easily accessible interventions while also taking forward the objectives of the Skills Strategy as a lever to ERRP to enrich the post-school education sector while responding to key interventions identified by the mer sector research and key stakeholders. To this end the notion of Public Private Partnerships (PPP) should also be revisited to effectively implement the objectives of the master plans, the ERRP and the overall national imperative to ensure good outcomes for SA citizens.

The merSETA partnership managers have suggested that partnerships should be innovative and embrace a value-driven outcome. Moreover, the merSETA has identified that it is fundamental to support and incentivise self-employment through entrepreneurship development programmes, which have been recommended in many plans and strategies including the NSDP and the NDP. As a result, entrepreneurship contributes to economic growth and employment, more youth need to be encouraged and trained to become entrepreneurs. Furthermore, having the right skills means being able to be more employable or to stay employed more easily and to manage job transitions better. This requires an expansion of upskilling and reskilling opportunities irrespective of qualification or skills level. For skills interventions the SETA will continue to prioritise partnerships with employers and TVET Colleges as well as HEIs. Research, development and innovation as it relates to the agenda of applied research, keeping abreast of sectoral developments, enhancing and updating skills interventions and aiding economic recovery will require targeted partnerships with HEIs, research firms, government departments and international agencies.

The following are proposed themes for the development of partnerships which should be pursued to meet the demand of both national and sectoral priorities:

- Assessing skills required to upskill workers in small and medium enterprises as we transition through the current economic climate.
- Assessing the potential for a tech enabled approach to lifelong learning and implications for the current regulatory framework
- Deeper analysis of the approach to micro-credentials and developing a portfolio of skills and qualifications to meet the demands of the changing world of work.
- Deeper understanding of how to overcome structural inequalities in respect of access to education and training opportunities
- Develop a clear roadmap for skills provision in in the informal, social and micro enterprise sector

- Develop and update curricula to accommodate the digital economy and personalisation skills for the 5IR
- Pursue additional international partnerships to keep pace with global trends.

In order to assess the partnerships required in the near and short term to make credible skills decisions as a SETA, the merSETA leadership committees should position the work of the SETA strategically to manage the requirements of the sectors in line with the themes outlined above and ensure that scalable partnerships are put in place to effectively assist the sector – this includes revisiting the notion of PPPs.

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 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.

The COVID-19 pandemic has brought the urgency of efficiency and targeted interventions to the fore. 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 the 4IR and ensure that communities and workers impacted by the pandemic are still able to participate in meaningful interventions to empower them to make a positive contribution to the sector and their communities. In addition, the merSETA has recognised the need to use technologies to assist learners on 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.

Furthermore, the need for more robust partnership arrangements has been highlighted in response to the Minister's call to reduce job losses and re-uptake skills that were retrenched due to the economic downturn, this requires partnerships for sustainable development beyond just providing skills but also providing investment in building the formal and informal business sector, skills for entrepreneurship, social entrepreneurship, and workplace experience, perhaps large scale innovations can be implemented through PPPs and other key international partnerships to leverage skills development locally and internationally. It is critical to ensure that partnerships are put in place for township economies and rural areas in addition to ensuring beneficiaries from vulnerable groups.

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 42 below.

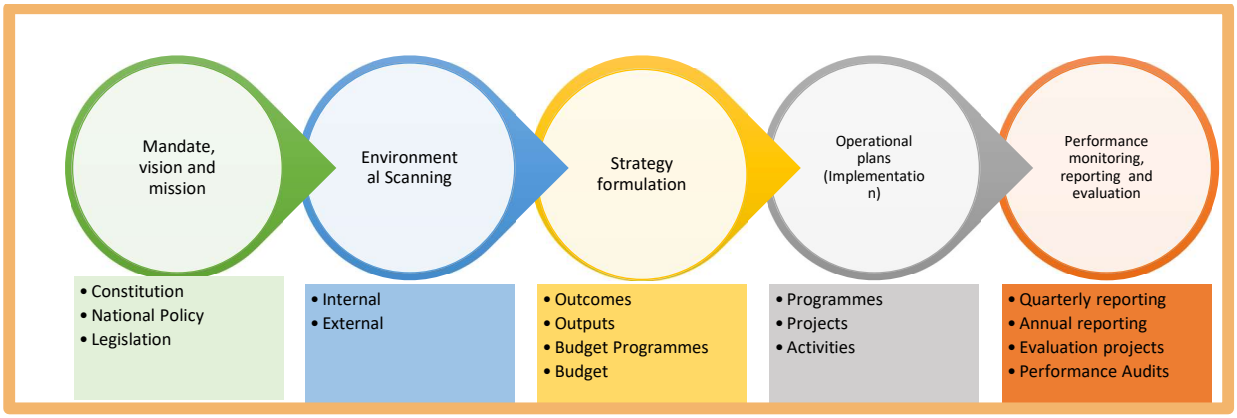


Figure 42: Role of M&E in the strategic planning process

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 19: The merSETA's systems that support M&E.

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 outcomes and outputs are in line with the merSETA Quality objectives. This is critical in supporting the merSETA in meeting its stakeholder and regulatory requirements as well as improving its effectiveness and efficiency on a continuous basis. The ISO 9001:2015 requirements identify performance evaluation as a critical performance indicator for the entity that needs to be monitored, analysed, and evaluated. The merSETA has, therefore, adopted internal audits assessments and 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 governance of information and knowledge as a strategic asset. KM guides planning, strategic decision making and operational 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 leverage the changes and opportunities presented by digital technologies.	The merSETA has established a labour market information system for coordinating, collection, processing, storage, retrieval, 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 for skills planning in the mer sector. Strengthening data management systems are key to the successful implementation of LMI system through a process of reviewing and continuous improvement. Similarly the KM system also works in tandem with the LMI and M&E data systems to ensure quality data.

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.

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 43: 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 20: Implementation of priorities identified in the 2022/23 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.
	More than half (61%) of the 869 companies that were approved for mandatory grants were small companies.

Priorities identified in the SSP and captured in the APP/SP	
	The SETA however failed to meet its targets of funding training on entrepreneurial skills to support establishment of own business.
Supporting skills for the changing world of work	Twenty-one 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.
	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.
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 over 1400 employers,
	1500 small businesses,
	25 NGOs and CBO and over 260 NLPEs
	Agility to respond to the needs of the sector is demonstrated in the many COVID-19 related projects and partnerships.
	The merSETA also implemented phase 3 of the PSET-CLOUD interoperability project aimed at strengthening the PSET digital ecosystem to improve planning, collaboration and decision making

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 2021/2022 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.

The impact of COVID-19 on the economy and the manufacturing sector specifically, resulted in some constraints with respect to certain targets which incorporated workplace-based learning (WBL), which is essentially linked to all merSETA funded interventions.

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 - PSET Cloud and Digital Ecosystem – 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. As reported previously, the Post School Education and Training Collaboration and Learning Opportunities in the Utilisation of Data (PSET-CLOUD) project in partnership with JET Education Services an initiative which aims to strengthen the data management and governance ecosystem for PSET to allow for better planning, decision making and management. The purpose of the project is to establish an integrated digital ecosystem that will strengthen, integrate, coordinate and improve efficiencies through planning, governance and management. The digital ecosystem approach will strengthen M&E, which is one of the critical areas identified in the NSDP.

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. 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 COVID-19, civil unrest, global economic downturn, and conflict in the Ukraine. The SSP has reinforced concepts introduced in the 2022/23 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. Chapter 2 elaborated on the skills drivers including the 5IR, new technologies, the green agenda and the changing 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. In combination the two chapters have laid the context in which skills planning must take place, which is essentially dichotomous 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 contexts 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. Key themes were identified that could set the merSETA on the path to aligning skills planning with national industrial and social planning.

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, the COVID-19 pandemic 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 to navigate the new normal.

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PRIORITY OCCUPATIONS

Rank	2021 OFO	Occupations
1	2021-653101	Automotive Motor Mechanic
2	2021-214101	Industrial Engineer
3	2021-652301	Metal Machinist
4	2021-653306	Diesel Mechanic
5	2021-671202	Millwright
6	2021-132107	Quality Manager
7	2021-652201	Toolmaker
8	2021-653303	Mechanical Fitter
9	2021-243301	Industrial Products Sales Representative
10	2021-718905	Engineering Production Systems Worker
11	2021-214401	Mechanical Engineer
12	2021-671208	Transportation Electrician
13	2021-714101	Rubber Production Machine Operator
14	2021-652302	Fitter and Turner
15	2021-643202	Vehicle Painter
16	2021-226302	Safety, Health, Environment and Quality (SHE&Q) Practitioner
17	2021-651202	Welder
18	2021-121901	Corporate General Manager
19	2021-651302	Boiler Maker
20	2021-122101	Sales and Marketing Manager
21	2021-671101	Electrician
22	2021-312201	Production / Operations Supervisor (Manufacturing)
23	2021-431101	Accounts Clerk
24	2021-122102	Sales Manager
25	2021-121101	Finance Manager
26	2021-132104	Engineering Manager

Rank	2021 OFO	Occupations
27	2021-242303	Human Resource Advisor
28	2021-311904	Manufacturing Technician
29	2021-684904	Panelbeater
30	2021-215101	Electrical Engineer
31	2021-714208	Plastics Manufacturing Machine Minder
32	2021-522303	Automotive Parts Salesperson
33	2021-431102	Cost Clerk
34	2021-242101	Management Consultant
35	2021-311301	Electrical Engineering Technician
36	2021-311501	Mechanical Engineering Technician
37	2021-642701	Air-conditioning and Refrigeration Mechanic
38	2021-432101	Stock Clerk / Officer
39	2021-251201	Software Developer
40	2021-642702	Refrigeration Mechanic
41	2021-714202	Plastic Compounding and Reclamation Machine Operator
42	2021-651403	Steel Fixer
43	2021-411101	General Clerk
44	2021-311401	Electronic Engineering Technician
45	2021-432201	Production Coordinator
46	2021-524903	Sales Clerk / Officer
47	2021-331201	Credit or Loans Officer
48	2021-132401	Supply and Distribution Manager
49	2021-214104	Production Engineering Technologist
50	2021-643201	Industrial Spraypainter
51	2021-214103	Production Engineer
52	2021-241102	Management Accountant
53	2021-311801	Draughtsperson
54	2021-122103	Director of Marketing
55	2021-313916	Manufacturing Production Technicians
56	2021-734402	Forklift Driver
57	2021-121908	Quality Systems Manager
58	2021-351302	Geographic Information Systems Technicians
59	2021-121905	Programme or Project Manager
60	2021-332302	Purchasing Officer
61	2021-132102	Manufacturing Operations Manager
62	2021-671204	Lift Mechanic
63	2021-325705	Safety Inspector
64	2021-653301	Industrial Machinery Mechanic
65	2021-522302	Motorised Vehicle or Caravan Salesperson
66	2021-671203	Mechatronics Technician
67	2021-652205	Master Toolmaker
68	2021-862919	Mechanic Trade Assistant
69	2021-522301	Sales Assistant (General)
70	2021-333903	Sales Representative (Business Services)
71	2021-652204	Patternmaker

Rank	2021 OFO	Occupations
72	2021-683401	Upholsterer
73	2021-332201	Commercial Sales Representative
74	2021-651401	Metal Fabricator
75	2021-332301	Retail Buyer
76	2021-313501	Metal Manufacturing Process Control Technician
77	2021-243103	Marketing Practitioner
78	2021-684305	Quality Controller (Manufacturing)
79	2021-214605	Metallurgist
80	2021-132402	Logistics Manager
81	2021-714204	Plastics Production Machine Operator (General)
82	2021-311201	Civil Engineering Technician
83	2021-351201	ICT Communications Assistant
84	2021-524901	Materials Recycler
85	2021-712101	Metal Processing Plant Operator
86	2021-721901	Product Assembler
87	2021-653307	Heavy Equipment Mechanic
88	2021-311905	Industrial Engineering Technician
89	2021-672105	Instrument Mechanician
90	2021-214501	Chemical Engineer
91	2021-333905	Supply Chain Practitioner
92	2021-211403	Materials Scientist
93	2021-212101	Actuary
94	2021-214102	Industrial Engineering Technologist
95	2021-215102	Electrical Engineering Technologist
96	2021-251102	Data Scientist
97	2021-313109	Solar Photovoltaic Service Technician
98	2021-313110	Wind Turbine Service Technician
99	2021-331502	Insurance Investigator
100	2021-712201	Electroplater

ANNEXURE 1: MERSETA PARTNERSHIPS

Type	Name of organisation	Value	Start Date	End Date	Avarage Duration (years)
CET	Kwazulu-Natal Community Education And Training College	Supporting community based skills development	31-Mar-22	31-Oct-24	2
CET	Northern Cape Community Education And Training College	Supporting community based skills development	30-Mar-22	31-Oct-24	2
Govt dept	Office Premier,Free State Prov	Provide access to skills development opportunities in line with national and sectoral priorities	29-Mar-16	30-Sep-22	6
Govt dept	National Dept Of Public Works-Merseta Funded	Provide access to skills development opportunities in line with national and sectoral priorities	03-Apr-14	31-Mar-20	5
Govt dept	Mpumalanga Dept Of Education	Providing bursaries to improve learner access to skills interventions	25-Mar-19	30-Sep-23	4
Govt dept	Limpopo Department Of Public Works, Roads And Infrastructure	Provide access to skills development opportunities in line with national and sectoral priorities	25-Mar-19	30-Sep-23	4
Govt dept	Economic Development, Tourism And Environmental Affairs	Provide access to skills development opportunities in line with national and sectoral priorities	13-Dec-19	30-Sep-24	4
Govt dept	Office Of The Premier Limpopo Prov	Provide access to skills development opportunities in line with national and sectoral priorities	29-Mar-17	31-Mar-23	6
Govt dept	Gauteng Depart-Education	Provide access to skills development opportunities in line with national and sectoral priorities	31-Mar-14	30-Sep-22	8
Govt dept	Depart Of Correc Services	Provide access to skills development opportunities for marginalised groups	31-Mar-17	31-Mar-22	5
Govt dept	Office Premier,Free State Prov	Provide access to skills development opportunities in line with national and sectoral priorities	14-Mar-17	30-Sep-22	5
Govt dept	Office Premier,Free State Prov	Provide access to skills development opportunities in line with national and sectoral priorities	15-Mar-21	30-Sep-24	3
Govt dept	Eastern Cape Office Of The Premier-Phase3	Provide access to skills development opportunities in line with national and sectoral priorities	17-Feb-22	30-Sep-26	4
Govt dept	Office Of The Premier Limpopo	Provide access to skills development opportunities in line with national and sectoral priorities	19-Jan-22	30-Sep-26	4
Govt dept	Office Of The Premier Free State	Provide access to skills development opportunities in line with national and sectoral priorities	21-Jan-22	30-Sep-26	4
Govt dept	Office Of The Premier:Kwazulu-Natal	Provide access to skills development opportunities in line with national and sectoral priorities	20-Mar-19	31-Mar-24	5
Govt dept	Depart Of Correc Services	Provide access to skills development opportunities for marginalised groups	29-Mar-17	31-Mar-23	6
Govt dept	Depart Of Correc Services	Provide access to skills development opportunities for marginalised groups	14-Jan-16	31-Oct-23	7
Govt dept	Office Of The Premier North West	Provide access to skills development opportunities in line with national and sectoral priorities	16-Mar-15	30-Sep-22	7

Type	Name of organisation	Value	Start Date	End Date	Avarage Duration (years)
Govt dept	Free State Department Of Education	Provide access to skills development opportunities in line with national and sectoral priorities	29-Mar-19	30-Sep-22	3
HEI	University Of South Africa	Providing workplace learning and experience for better labour market outcomes	31-Mar-20	30-Sep-22	2
HEI	Nelson Mandela University	Providing bursaries to improve learner access to skills interventions	14-Jul-21	31-Mar-25	3
HEI	University Of Cape Town	Provide access to skills development opportunities in line with national and sectoral priorities	20-Mar-19	30-Sep-23	4
HEI	Vaal University Of Technology	Provide access to skills development opportunities in line with national and sectoral priorities	30-Mar-19	30-Sep-23	4
HEI	Cape Peninsula University Of Technology	Providing workplace learning and experience for better labour market outcomes	09-Dec-20	30-Sep-23	2
HEI	Cape Peninsula University Of Technology	Providing workplace learning and experience for better labour market outcomes	31-Mar-22	30-Sep-26	4
HEI	Central Univ. Of Technology Innovation Services	Providing workplace learning and experience for better labour market outcomes	30-Oct-20	30-Sep-24	3
HEI	Central Univ. Of Technology Innovation Services	Providing workplace learning and experience for better labour market outcomes	09-Dec-20	31-Mar-23	2
HEI	University Of The Western Cape	Lecturer Development	16-Nov-16	31-Mar-23	6
HEI	Nelson Mandela University	Lecturer Development	01-Feb-19	31-Mar-24	5
HEI	University Of The Free State	Provide access to skills development opportunities in line with national and sectoral priorities	20-May-20	31-Mar-24	3
HEI	University Of Venda	Industry related R&D	31-Mar-17	31-Mar-22	5
HEI	North-West University (Nwu)	Industry related R&D	31-Mar-20	31-Mar-23	3
HEI	University Of The Free State	Provide access to skills development opportunities in line with national and sectoral priorities	30-Nov-18	31-Mar-24	5
HEI	Cape Peninsula University Of Technology	Provide access to skills development opportunities in line with national and sectoral priorities	21-Jan-19	31-Mar-23	4
HEI	Central Univ. Of Technology Innovation Services	Providing bursaries to improve learner access to skills interventions	21-Dec-18	31-Mar-23	4
HEI	Nelson Mandela University	Provide access to skills development opportunities in line with national and sectoral priorities	28-Mar-19	31-Mar-23	4
HEI	Mangosutho Univ Of Technology	Provide access to skills development opportunities in line with national and sectoral priorities	16-Mar-22	30-Sep-26	4
HEI	University Of Cape Town	NCV learners	20-Mar-19	30-Sep-23	4
HEI	Walter Sisulu University	Career Awareness	24-Jul-20	31-Dec-23	3

Type	Name of organisation	Value	Start Date	End Date	Avarage Duration (years)
HEI	Tshwane University Of Technology	Development in line with the 4IR	23-Mar-21	31-Mar-24	3
HEI	Tshwane University Of Technology	Provide access to skills development opportunities in line with national and sectoral priorities	22-Jun-20	31-Mar-24	3
HEI	Tshwane University Of Technology	Providing workplace learning and experience for better labour market outcomes	11-Mar-21	30-Sep-23	2
HEI	University Of The Western Cape	Development in line with the 4IR	28-Sep-18	31-Mar-23	4
HEI	University Of Johannesburg	Provide access to skills development opportunities in line with national and sectoral priorities	23-Mar-21	31-Mar-23	2
HEI	Tshwane University Of Technology	Provide access to skills development opportunities in line with national and sectoral priorities	22-Mar-19	31-Mar-23	4
HEI	Rhodes University	Provide access to skills development opportunities in line with national and sectoral priorities	22-Mar-19	31-Mar-22	3
HEI	University Of Cape Town	Industry related R&D	08-Sep-20	31-Mar-22	1
HEI	University Of Johannesburg	Industry related R&D	12-Aug-20	31-Mar-22	1
HEI	Nelson Mandela University	Industry related R&D	20-Aug-20	30-Sep-21	1
HEI	University Of The Witwatersrand	Provide access to skills development opportunities in line with national and sectoral priorities	17-Nov-20	01-Oct-23	2
HEI	Central Univ. Of Technology Innovation Services	Providing workplace learning and experience for better labour market outcomes	20-May-19	30-Sep-23	4
HEI	Durban University Of Technology	Providing workplace learning and experience for better labour market outcomes	27-Mar-19	30-Sep-23	4
HEI	Durban University Of Technology	Providing workplace learning and experience for better labour market outcomes	29-Mar-19	30-Sep-22	3
HEI	Mangosutho Univ Of Technology	Providing workplace learning and experience for better labour market outcomes	19-Mar-19	30-Sep-23	4
HEI	Mangosutho Univ Of Technology	Providing workplace learning and experience for better labour market outcomes	17-Nov-20	30-Sep-23	2
International	Chinese Culture And Int Ed Exc Centre	Providing workplace learning and experience for better labour market outcomes	09-Dec-16	31-Mar-22	5
International	Chinese Culture And Int Ed Exc Centre	Providing workplace learning and experience for better labour market outcomes	04-Mar-19	31-Oct-23	4
PSET	Numsa Investment Company	Providing bursaries to improve learner access to skills interventions	26-Oct-21	30-Sep-23	1
PSET	Council For Scientific And Industrial Research	Development in line with the 4IR for the small business sector	12-May-17	30-Jun-21	4
PSET	The Quality Council For Trades And Occupations (Qcto)	Development in line with the 4IR for the small business sector	22-Jan-19	30-Jun-21	2
PSET	Alan Forsyth	Curriculum Development in line with occupational qualifications and sectoral needs	18-Apr-18	31-Mar-22	3

Type	Name of organisation	Value	Start Date	End Date	Avarage Duration (years)
PSET	Alan Forsyth	Curriculum Development in line with occupational qualifications and sectoral needs	21-Jun-18	31-Mar-22	3
PSET	Ikusasa Student Financial Aid Programme	Providing bursaries to improve learner access to skills interventions	31-Mar-21	31-Mar-24	3
PSET	Ikusasa Student Financial Aid Programme	Providing bursaries to improve learner access to skills interventions	22-Mar-19	31-Oct-22	3
PSET	Saldanha Bay Idz Licencing Company Soc Ltd	Provide access to skills development opportunities in line with national and sectoral priorities	29-Mar-19	30-Sep-23	4
PSET	Elsiemot And Associates	Qualification/curriculum development	23-Mar-19	Month to month	Month to month
PSET	Automotive Industry Development Corporation-Eastern Cape	Industry related skills development	17-Feb-22	30-Sep-26	4
PSET	Motseki Business Consulting	Qualification/curriculum development	12-Aug-14	Month to month	Month to month
PSET	Nsfas	Providing bursaries to improve learner access to skills interventions	10-Mar-17	31-Oct-22	5
PSET	Cape Engineers & Founders Association(Cefa)	Industry related skills development	26-Aug-21	31-Mar-22	0
PSET	Customised Business Advisory Solutions	Curriculum Development in line with occupational qualifications and sectoral needs	04-Jun-18	31-Mar-22	3
PSET	Cape Peninsula Univ /Saretec	Providing workplace learning and experience for better labour market outcomes	21-Jan-19	31-Mar-23	4
PSET	Mabatimi Management Services Cc	TBC	14-Apr-21	31-Jul-21	0
PSET	National Association Of Automotive Component And Alled Manufactures (Naacam)	Provide access to skills development opportunities in line with national and sectoral priorities	14-Mar-22	30-Sep-22	0
PSET	East Cape Training Centre	NCV learners	23-Mar-21	30-Sep-25	4
PSET	Creative Consulting	Qualification/curriculum development	24-Jul-13	Month to month	Month to month
PSET	Retail Motor Industry Organisation(Rmi)	Provide access to skills development opportunities in line with national and sectoral priorities	29-Mar-19	31-Mar-23	4
PSET	Joint Education Trust Education Services(Jet)	PSET Interoperability	04-Feb-20	31-Mar-24	4
PSET	Elsiemot And Associates	Qualification/curriculum development	20-Feb-20	31-Mar-22	2
PSET	Retail Motor Industry Organisation(Rmi)	Provide access to skills development opportunities in line with national and sectoral priorities	06-May-21	31-Mar-24	2

Type	Name of organisation	Value	Start Date	End Date	Avarage Duration (years)
PSET	Chrio Jirah Academy Cc	Qualification/curriculum development	18-Dec-15	Month to month	Month to month
PSET	Council For Scientific And Industrial Research	Curriculum Development in line with occupational qualifications and sectoral needs	22-Mar-19	31-Mar-23	4
PSET	Customised Business Advisory Solutions	Curriculum Development in line with occupational qualifications and sectoral needs	27-Jun-17	Month to month	Month to month
PSET	Numsa Investment Company	Provide access to skills development opportunities in line with national and sectoral priorities	30-Nov-20	31-Mar-23	2
PSET	World Skills South Africa	Provide access to skills development opportunities in line with national and sectoral priorities	30-Mar-22	31-Oct-26	4
Research	Mining Equipment Manufacturers Of South Africa(Memsa)	Research	24-Mar-21	30-Sep-22	1
Research	Trade & Industrial Policy Strategies	Research	10-Mar-21	28-Feb-22	0
Research	Plastics Federation Of Sa	Research	20-Mar-20	30-Sep-21	1
Research	National Union Of Metalworkers	Research	19-Mar-20	30-Jun-21	1
Research	Seifsa-Rssp	Research	11-Nov-20	30-Sep-21	0
Research	National Union Of Metalworkers	Research	19-Mar-20	30-Sep-21	1
Research	University Of Cape Town	Research	03-Jun-19	31-Aug-22	3
Research	Redflank Solutions (Pty) Ltd	Research	24-Mar-21	31-May-22	1
Research	Redflank Solutions (Pty) Ltd	Research	24-Mar-21	31-May-22	1
Research	Nelson Mandela University	Research	03-Jul-18	30-Jun-22	3
Research	Redflank Solutions (Pty) Ltd	Research	24-Mar-21	30-Jun-22	1
Research	Human Sciences Research Council	Research	13-Mar-19	15-Jun-21	2
Research	Urban-Econ Development Economists Pty Ltd	Research	02-Mar-22	30-Oct-22	0
TVET	Waterberg TVET College	NCV learners	17-Mar-17	30-Sep-22	5
TVET	Orbit TVET College	NCV learners	30-Mar-15	30-Sep-22	7

Type	Name of organisation	Value	Start Date	End Date	Avarage Duration (years)
TVET	Ekurhuleni TVET College	NCV learners	30-Mar-15	30-Sep-22	7
TVET	Ekurhuleni TVET College	NCV learners	02-Dec-16	30-Sep-22	5
TVET	Ekurhuleni TVET College	NCV learners	18-Dec-17	30-Sep-22	4
TVET	Ekurhuleni TVET College	NCV learners	20-Mar-19	30-Sep-23	4
TVET	Ekurhuleni TVET College	NCV learners	11-Nov-20	30-Sep-24	3
TVET	Motheo TVET College	NCV learners	27-Mar-19	30-Sep-23	4
TVET	Motheo TVET College	NCV learners	31-Mar-15	30-Sep-22	7
TVET	Taletso TVET College	NCV learners	03-Feb-16	30-Sep-22	6
TVET	Ehlanzeni TVET College	NCV learners	04-Mar-16	30-Sep-22	6
TVET	Lephalale TVET College	NCV learners	11-Oct-19	30-Sep-24	4
TVET	Lephalale TVET College	NCV learners	16-Jan-18	30-Sep-22	4
TVET	College Of Cape Town TVET	NCV learners	10-Mar-16	30-Sep-22	6
TVET	College Of Cape Town TVET	NCV learners	29-Mar-19	30-Sep-23	4
TVET	College Of Cape Town TVET	NCV learners	03-Feb-16	30-Sep-22	6
TVET	College Of Cape Town TVET	NCV learners	15-Mar-21	30-Sep-24	3
TVET	College Of Cape Town TVET	NCV learners	15-Jan-19	30-Sep-23	4
TVET	College Of Cape Town TVET	NCV learners	09-Sep-19	30-Sep-24	5
TVET	College Of Cape Town TVET	NCV learners	13-Dec-17	31-Mar-22	4
TVET	Northlink TVET College	NCV learners	25-Jan-19	30-Sep-22	3
TVET	Northlink TVET College	NCV learners	18-Dec-17	31-Mar-22	4
TVET	Northlink TVET College	NCV learners	30-Mar-15	30-Sep-22	7
TVET	Northlink TVET College	NCV learners	19-Dec-19	30-Sep-24	4
TVET	Nkangala TVET College	NCV learners	14-Dec-17	30-Mar-20	2
TVET	Nkangala TVET College	NCV learners	28-Oct-19	30-Sep-24	4
TVET	Nkangala TVET College	NCV learners	15-Feb-19	30-Sep-22	3

Type	Name of organisation	Value	Start Date	End Date	Avarage Duration (years)
TVET	West Coast TVET College	NCV learners	11-Mar-19	30-Sep-23	4
TVET	West Coast TVET College	NCV learners	25-Sep-19	30-Sep-24	5
TVET	West Coast TVET College	NCV learners	27-Nov-20	30-Sep-24	3
TVET	West Coast TVET College	NCV learners	14-Mar-19	30-Sep-23	4
TVET	West Coast TVET College	NCV learners	28-Feb-19	30-Sep-23	4
TVET	Tshwane TVET College	NCV learners	09-Sep-19	30-Sep-24	5
TVET	Tshwane TVET College	NCV learners	14-Mar-19	30-Sep-23	4
TVET	Tshwane TVET College	NCV learners	30-Mar-15	30-Sep-22	7
TVET	Sekhukhune TVET College	NCV learners	13-Mar-19	30-Sep-23	4
TVET	Boland TVET College	NCV learners	28-Mar-19	30-Sep-23	4
TVET	Boland TVET College	NCV learners	25-Oct-19	30-Sep-24	4
TVET	Boland TVET College	NCV learners	13-Oct-20	30-Sep-24	3
TVET	Boland TVET College	NCV learners	22-Mar-19	30-Sep-23	4
TVET	Capricorn TVET College	NCV learners	09-Sep-19	30-Sep-24	5
TVET	Capricorn TVET College	NCV learners	25-Mar-19	30-Sep-23	4
TVET	Letaba TVET College	NCV learners	25-Mar-19	30-Sep-23	4
TVET	Umfolozi TVET College	NCV learners	28-Mar-19	30-Sep-23	4
TVET	False Bay TVET College	NCV learners	28-Mar-22	30-Sep-26	4
TVET	False Bay TVET College	NCV learners	03-Oct-19	30-Sep-24	4
TVET	False Bay TVET College	NCV learners	11-Dec-18	30-Sep-23	4
TVET	False Bay TVET College	NCV learners	18-Dec-17	30-Sep-23	5
TVET	King Sabata Dalindyebo TVET College	NCV learners	25-Mar-19	30-Sep-23	4
TVET	Gert Sibanda TVET College	NCV learners	27-Mar-19	30-Sep-23	4
TVET	Gert Sibanda TVET College	NCV learners	26-Jan-18	31-Mar-22	4

Type	Name of organisation	Value	Start Date	End Date	Avarage Duration (years)
TVET	Mopani South East TVET College	NCV learners	17-Sep-19	30-Sep-24	5
TVET	Ikhala TVET College	NCV learners	02-Oct-20	30-Sep-23	2
TVET	Ingwe TVET College	NCV learners	08-Mar-19	30-Sep-23	4
TVET	Ingwe TVET College	NCV learners	13-Oct-20	30-Sep-24	3
TVET	Vuselela TVET College	NCV learners	14-Mar-19	30-Sep-23	4
TVET	Northern Cape Urban TVET College	NCV learners	28-Mar-22	30-Sep-24	2
TVET	Elangeni TVET College	NCV learners	12-Mar-21	30-Sep-23	2
TVET	King Hintsa TVET College	NCV learners	28-Oct-20	30-Sep-24	3
TVET	Vhembe TVET College	NCV learners	27-Nov-20	30-Sep-24	3
TVET	West Coast TVET College	Qualification/curriculum development	27-Mar-19	31-Mar-22	3
TVET	Tshwane TVET College	Qualification/curriculum development	02-Aug-19	31-Dec-22	3
TVET	Ekurhuleni TVET College	Provide access to skills development opportunities in line with national and sectoral priorities	25-Oct-19	31-Dec-22	3
TVET	False Bay TVET College	Provide access to skills development opportunities in line with national and sectoral priorities	28-Oct-19	31-Dec-22	3
TVET	Vuselela TVET College	Provide access to skills development opportunities in line with national and sectoral priorities	25-Sep-19	31-Dec-22	3
TVET	Eastcape Midlands TVET College	Provide access to skills development opportunities in line with national and sectoral priorities	19-Nov-19	31-Dec-22	3
TVET	Goldfields TVET College	Provide access to skills development opportunities in line with national and sectoral priorities	30-Sep-19	31-Dec-22	3

ANNEXURE 2: OCCUPATONS AT RISK OF DISPLACEMENT DUE TO AUTOMATION

Rank	Occupation description	Share of merSETA employment (%)	Auto	Auto components	Metals	New Tyre	Plastics	Risk of automation
1	Textile-, fur- and leather-products machine operators not elsewhere classified	0.13	0.00	0.00	0.13	0.00	0.00	High
2	Woodworking-machine setters and setter-operators	0.05	0.00	0.00	0.05	0.00	0.00	High
3	Wood-processing-plant operators	0.09	0.00	0.00	0.09	0.00	0.00	High
4	Sewing-machine operators	0.19	0.00	0.05	0.00	0.00	0.14	High
5	Shoe-makers and related workers	0.02	0.00	0.02	0.00	0.00	0.00	High
6	Cement and other mineral products machine operators	0.04	0.00	0.00	0.04	0.00	0.00	High
7	Wood-products machine operators	0.05	0.00	0.00	0.05	0.00	0.00	High
8	Sewers, embroiderers and related workers	0.08	0.00	0.06	0.03	0.00	0.00	High
9	Rubber-products machine operators	1.16	0.00	0.03	0.00	0.83	0.31	High
10	Chemical-processing-plant operators not elsewhere classified	0.05	0.00	0.00	0.00	0.00	0.05	High
11	Metal finishing-, plating- and coating-machine operators	0.42	0.03	0.10	0.29	0.00	0.00	High
12	Mail carriers and sorting clerks	0.72	0.00	0.00	0.52	0.05	0.15	High
13	Bleaching-, dyeing- and cleaning-machine operators	0.01	0.00	0.00	0.01	0.00	0.00	High
14	Paper-products machine operators	0.09	0.00	0.00	0.00	0.00	0.09	High
15	Coding, proof-reading and related clerks	0.04	0.04	0.00	0.00	0.00	0.00	High
16	Messengers, package and luggage porters and deliverers	0.43	0.00	0.00	0.22	0.00	0.21	High
17	Metal moulders and coremakers	0.18	0.00	0.00	0.18	0.00	0.00	High
18	Stone splitters, cutters and carvers	0.10	0.00	0.02	0.00	0.00	0.08	High
19	Helpers and cleaners in offices, hotels and other establishments	1.93	0.37	0.07	1.02	0.17	0.30	High
20	Welders and flamecutters	10.52	0.52	0.10	9.61	0.10	0.19	High
21	Metal wheel-grinders, polishers and tool sharpeners	0.61	0.00	0.15	0.31	0.00	0.11	High
22	Ammunition- and explosive-products machine operators	0.04	0.00	0.00	0.04	0.00	0.00	High
23	Machine-tool operators	11.50	0.19	1.08	9.95	0.00	0.28	High
24	Other machine operators and assemblers	0.30	0.00	0.14	0.08	0.00	0.08	High
25	Pharmaceutical- and toiletry-products machine operators	0.12	0.00	0.00	0.12	0.00	0.00	High

Rank	Occupation description	Share of merSETA employment (%)	Auto	Auto components	Metals	New Tyre	Plastics	Risk of automation
26	Glass-makers, cutters, grinders and finishers	0.11	0.04	0.00	0.07	0.00	0.00	High
27	Plastic-products machine operators	3.01	0.00	0.00	0.02	0.00	2.98	High
28	Printing-machine operators	0.04	0.00	0.00	0.00	0.00	0.04	High
29	Metal drawers and extruders	0.21	0.00	0.00	0.21	0.00	0.00	High
30	Mining and quarrying labourers	0.04	0.00	0.00	0.04	0.00	0.00	High
31	Machine-tool setters and setter-operators	0.65	0.00	0.19	0.27	0.00	0.19	High
32	Mineral-ore- and stone-processing-plant operators	0.08	0.00	0.00	0.08	0.00	0.00	High
33	Hand packers and other manufacturing labourers	7.49	0.40	0.91	3.40	0.12	2.56	High
34	Lifting-truck operators	1.42	0.04	0.15	0.78	0.24	0.21	High
35	Jewellery and precious-metal workers	0.14	0.00	0.00	0.14	0.00	0.00	High
36	Metal-, rubber- and plastic-products assemblers	1.03	0.19	0.00	0.69	0.00	0.05	High
37	Crane, hoist and related plant operators	0.94	0.00	0.00	0.78	0.11	0.05	Intermediate
38	Metal melters, casters and rolling-mill operators	0.23	0.00	0.00	0.23	0.00	0.00	Intermediate
39	Glass and ceramics kiln and related machine operators	0.31	0.04	0.11	0.16	0.00	0.00	Intermediate
40	Ore and metal furnace operators	0.50	0.06	0.00	0.44	0.00	0.00	Intermediate
41	Telephone switchboard operators	0.06	0.00	0.00	0.03	0.03	0.00	Intermediate
42	Garbage collectors	0.67	0.00	0.00	0.00	0.00	0.67	Intermediate
43	Mining-plant operators	0.04	0.00	0.00	0.04	0.00	0.00	Intermediate
44	Miners and quarry workers	0.11	0.00	0.00	0.11	0.00	0.00	Intermediate
45	Cabinet-makers and related workers	0.05	0.00	0.00	0.00	0.00	0.05	Intermediate
46	Industrial robot controllers	0.08	0.04	0.04	0.00	0.00	0.00	Intermediate
47	Freight handlers	0.54	0.04	0.00	0.36	0.10	0.04	Intermediate
48	Riggers and cable splicers	0.05	0.00	0.00	0.05	0.00	0.00	Intermediate
49	Electrical-equipment assemblers	0.26	0.00	0.00	0.26	0.00	0.00	Intermediate
50	Crushing-, grinding- and chemical-mixing machinery operators	0.57	0.00	0.00	0.03	0.00	0.54	Intermediate
51	Plumbers and pipe fitters	0.35	0.00	0.00	0.35	0.00	0.00	Intermediate
52	Housekeepers and related workers	0.10	0.00	0.00	0.03	0.06	0.00	Intermediate

Rank	Occupation description	Share of merSETA employment (%)	Auto	Auto components	Metals	New Tyre	Plastics	Risk of automation
53	Farm-hands and labourers	0.34	0.00	0.00	0.15	0.00	0.19	Intermediate
54	Cashiers and ticket clerks	0.07	0.00	0.00	0.00	0.00	0.07	Intermediate
55	Mechanical-machinery assemblers	2.00	1.44	0.30	0.25	0.00	0.00	Intermediate
56	Building caretakers	0.04	0.04	0.00	0.00	0.00	0.00	Intermediate
57	Structural-metal preparers and erectors	1.09	0.00	0.00	1.09	0.00	0.00	Intermediate
58	Stock clerks	2.20	0.10	0.28	1.17	0.11	0.54	Intermediate
59	Wood and related products assemblers	0.39	0.00	0.00	0.16	0.00	0.23	Intermediate
60	Bookkeepers	0.22	0.08	0.04	0.07	0.00	0.03	Intermediate
61	Electronic-equipment assemblers	0.04	0.00	0.00	0.04	0.00	0.00	Intermediate
62	Accounting and bookkeeping clerks	1.18	0.06	0.00	1.06	0.00	0.07	Intermediate
63	Agricultural- or industrial-machinery mechanics and fitters	3.60	0.13	0.22	3.14	0.00	0.07	Intermediate
64	Heavy truck and lorry drivers	2.22	0.00	0.09	1.24	0.00	0.89	Intermediate
65	Earth-moving- and related plant operators	0.05	0.00	0.00	0.05	0.00	0.00	Intermediate
66	Data entry operators	0.03	0.00	0.03	0.00	0.00	0.00	Intermediate
67	Building construction labourers	0.14	0.00	0.00	0.06	0.00	0.08	Intermediate
68	Cooks	0.20	0.00	0.14	0.05	0.00	0.00	Intermediate
69	Tool-makers and related workers	0.44	0.00	0.06	0.26	0.00	0.11	Intermediate
70	Car, taxi and van drivers	1.05	0.07	0.14	0.71	0.14	0.00	Intermediate
71	Motor vehicle mechanics and fitters	0.95	0.27	0.07	0.34	0.24	0.00	Intermediate
72	Handicraft workers in wood and related materials	0.06	0.00	0.00	0.06	0.00	0.00	Intermediate
73	Safety, health and quality inspectors	3.45	0.47	0.63	1.64	0.21	0.49	Intermediate
74	Sheet-metal workers	3.22	0.44	0.00	2.70	0.04	0.03	Intermediate
75	Electrical mechanics and fitters	1.25	0.16	0.03	0.99	0.07	0.00	Intermediate
76	Painters and related workers	0.03	0.00	0.00	0.03	0.00	0.00	Intermediate
77	Medical equipment operators	0.08	0.08	0.00	0.00	0.00	0.00	Intermediate
78	Compositors, typesetters and related workers	0.07	0.00	0.00	0.00	0.00	0.07	Intermediate
79	Construction and maintenance labourers: roads, dams and similar constructions	0.46	0.02	0.00	0.36	0.00	0.08	Intermediate

Rank	Occupation description	Share of merSETA employment (%)	Auto	Auto components	Metals	New Tyre	Plastics	Risk of automation
80	Power-production plant operators	0.04	0.00	0.00	0.04	0.00	0.00	Intermediate
81	Receptionists and information clerks	0.36	0.09	0.00	0.16	0.03	0.09	Intermediate
82	Carpenters and joiners	0.67	0.00	0.00	0.55	0.00	0.12	Intermediate
83	Chemical and physical science technicians	0.18	0.00	0.00	0.07	0.00	0.11	Intermediate
84	Telegraph and telephone installers and servicers	0.06	0.00	0.00	0.06	0.00	0.00	Intermediate
85	Library and filing clerks	0.04	0.00	0.00	0.04	0.00	0.00	Intermediate
86	Other office clerks	3.21	0.33	0.17	2.06	0.06	0.60	Intermediate
87	Building and related electricians	1.31	0.28	0.28	0.68	0.00	0.08	Intermediate
88	Draughtspersons	0.08	0.00	0.00	0.08	0.00	0.00	Intermediate
89	Blacksmiths, hammer-smiths and forging-press workers	0.11	0.00	0.00	0.11	0.00	0.00	Intermediate
90	Secretaries	0.35	0.08	0.00	0.23	0.00	0.04	Intermediate
91	Precision-instrument makers and repairers	0.07	0.00	0.00	0.07	0.00	0.00	Intermediate
92	Shop salespersons and demonstrators	0.89	0.00	0.18	0.68	0.00	0.03	Intermediate
93	Varnishers and related painters	0.38	0.10	0.05	0.22	0.00	0.00	Intermediate
94	Transport clerks	0.23	0.00	0.12	0.06	0.00	0.05	Intermediate
95	Incinerator, water-treatment and related plant operators	0.36	0.00	0.00	0.27	0.00	0.09	Intermediate
96	Statistical and finance clerks	0.47	0.00	0.00	0.38	0.00	0.09	Intermediate
97	Electronics and telecommunications engineering technicians	0.47	0.11	0.00	0.33	0.00	0.03	Intermediate
98	Electrical engineering technicians	0.29	0.14	0.00	0.16	0.00	0.00	Intermediate
99	Physical and engineering science technicians not elsewhere classified	0.03	0.03	0.00	0.00	0.00	0.00	Intermediate
100	Business services agents and trade brokers not elsewhere classified	0.34	0.00	0.00	0.34	0.00	0.00	Intermediate
101	Mechanical engineering technicians	0.61	0.10	0.01	0.40	0.00	0.09	Intermediate
102	Electronics mechanics and servicers	0.33	0.00	0.05	0.20	0.00	0.08	Intermediate
103	Production clerks	0.14	0.00	0.05	0.08	0.00	0.00	Intermediate
104	Aircraft engine mechanics and fitters	0.06	0.00	0.00	0.06	0.00	0.00	Intermediate
105	Agronomy and forestry technicians	0.07	0.00	0.00	0.07	0.00	0.00	Intermediate
106	Electronics fitters	0.19	0.03	0.00	0.15	0.00	0.00	Intermediate

Rank	Occupation description	Share of merSETA employment (%)	Auto	Auto components	Metals	New Tyre	Plastics	Risk of automation
107	Protective services workers not elsewhere classified	0.12	0.00	0.00	0.12	0.00	0.00	Low
108	Building frame and related trades workers not elsewhere classified	0.91	0.00	0.00	0.91	0.00	0.00	Low
109	Computer assistants	0.23	0.13	0.00	0.10	0.00	0.00	Low
110	Medical assistants	0.11	0.00	0.00	0.11	0.00	0.00	Low
111	Cartographers and surveyors	0.03	0.00	0.00	0.03	0.00	0.00	Low
112	Electrical line installers, repairers and cable jointers	0.03	0.00	0.00	0.03	0.00	0.00	Low
113	Civil engineering technicians	0.18	0.00	0.00	0.18	0.00	0.00	Low
114	Production and operations department managers in agriculture, hunting, forestry and fishing	0.08	0.00	0.00	0.08	0.00	0.00	Low
115	Production and operations department managers in transport, storage and communications	0.40	0.14	0.00	0.26	0.00	0.00	Low
116	Fire-fighters	0.05	0.00	0.00	0.05	0.00	0.00	Low
117	Appraisers, valuers and auctioneers	0.23	0.17	0.00	0.06	0.00	0.00	Low
118	Production and operations department managers in manufacturing	3.86	0.17	0.22	2.81	0.14	0.49	Low
119	Buyers	0.32	0.00	0.00	0.32	0.00	0.00	Low
120	Decorators and commercial designers	0.38	0.00	0.00	0.29	0.00	0.09	Low
121	Computer systems designers and analysts	0.06	0.00	0.00	0.06	0.00	0.00	Low
122	Computer programmers	0.10	0.00	0.00	0.10	0.00	0.00	Low
123	General managers in wholesale and retail trade	0.04	0.00	0.00	0.04	0.00	0.00	Low
124	Lawyers	0.07	0.07	0.00	0.00	0.00	0.00	Low
125	Production and operations department managers in wholesale and retail trade	0.05	0.00	0.00	0.05	0.00	0.00	Low
126	Other department managers not elsewhere classified	0.99	0.12	0.17	0.66	0.00	0.05	Low
127	General managers of business services	0.07	0.00	0.00	0.07	0.00	0.00	Low
128	Electrical engineers	0.60	0.00	0.03	0.51	0.00	0.06	Low
129	Production and operations department managers in business services	0.61	0.00	0.04	0.51	0.02	0.04	Low
130	Accountants	0.69	0.00	0.20	0.29	0.00	0.19	Low
131	Finance and administration department managers	1.13	0.11	0.00	0.86	0.04	0.05	Low
132	Supply and distribution department managers	0.12	0.00	0.00	0.12	0.00	0.00	Low
133	Computing services department managers	0.09	0.00	0.00	0.09	0.00	0.00	Low

Rank	Occupation description	Share of merSETA employment (%)	Auto	Auto components	Metals	New Tyre	Plastics	Risk of automation
134	Technical and commercial sales representatives	1.42	0.00	0.09	1.18	0.00	0.14	Low
135	Mechanical engineers	0.54	0.08	0.02	0.37	0.00	0.07	Low
136	Trade brokers	0.15	0.00	0.00	0.07	0.00	0.07	Low
137	Business professionals not elsewhere classified	0.59	0.12	0.05	0.42	0.00	0.00	Low
138	Personnel and careers professionals	0.26	0.00	0.04	0.22	0.00	0.00	Low
139	Chemical engineers	0.03	0.00	0.00	0.00	0.00	0.03	Low
140	Personnel and industrial relations department managers	0.43	0.06	0.00	0.25	0.00	0.11	Low
141	Sales and marketing department managers	0.47	0.03	0.00	0.26	0.00	0.18	Low
142	Directors and chief executives	0.39	0.00	0.00	0.39	0.00	0.00	Low