merSETA
MANUFACTURING, ENGINEERING AND RELATED SERVICES SETA

Final
SECTOR SKILLS PLAN
2022/ 2023

2 August 2021

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OFFICIAL SIGN OFF

Final Submission of required SSP Documents as per DHET Guidelines for SSP 2022/2023

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

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

Ms S. Nomvete

Strategy and Research Executive

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Mr W. Adams

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Chairperson of the merSETA

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COVER LETTER

2 August 2021

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) comprising this cover letter and the merSETA Continuous Improvement Plan (CIP) and 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 2021/2022.

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

Economic Climate: Global COVID-19 Pandemic and Economic Climate

This Final SSP Update 2022/23 is submitted in a time that is particularly difficult due to the recent State of Emergency declared by President Ramaphosa due to civil unrest in the KZN and Gauteng Provinces. These provinces represent a significant footprint of mer sector companies. This compounds the already turbulent economic crisis brought on by the COVID-19 pandemic.

The SSP is positioned such that it responds to the Economic Reconstruction and Recovery Plan (ERRP) as well as the COVID-19 pandemic. It provides an update in terms of refining the priority skills actions with the aim of supporting the skills highlighted in the ERRP skills strategy as well as the skills the mer sectors have highlighted as important for a post COVID-19 economy.

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 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 Governance & Strategy Committee recommended approval of the SSP to the Accounting Authority on 15 July 2021. All feedback and updates emanating from these committees have been incorporated.

Kind regards

Wayne Adams

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Mr Wayne Adams
Chief Executive Officer: merSETA

Kate Moloto

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Chairperson of the merSETA Accounting Authority

FOREWARD

The Manufacturing, Engineering & Related Services SETA (merSETA) presents this SSP 2022/2023 Update, which is the second update since the 5 year plan was submitted. This SSP has been updated in consultation with a myriad of mer sector stakeholders through research projects that have informed the SSP as well as stakeholder interviews, Chamber workshops, focus groups and discussions as well as workshops with the merSETA Governance & Strategy Committee (GSC) and the merSETA Accounting Authority (AA). This rigorous process gives the merSETA confidence that the document will assist in strategic decisions based on evidence.

This iteration of the SSP has been written under difficult circumstances. The period represents more than a year of being in various stages of lockdown due to the COVID-19 pandemic and most recently a state of emergency due to the civil unrest experienced in the KZN and Gauteng Provinces. The resultant economic and social turmoil is profound and now, more than ever the country needs to band together. It will be imperative to bring all our resources together to work towards Economic Reconstruction and Recovery. More than just "Closing the Skills Gap", this SSP aims to highlight the need to collaborate across public and private institutions to rebuild and recover, with skills development being a critical component of these efforts.

It is recognised that due to this being the second year of harsh economic conditions and living amid a global pandemic, the merSETA had already positioned itself in line with national priorities as articulated in the ERRP, the NDP and the NSDP in the previous SSP update. The SETA has completed research projects to inform skills needs to recover after COVID-19. The mer sector stakeholders have displayed commendable support for not only the research efforts but also all the partnerships that were put in place in response to the pandemic. As we look forward to the year's end, we are confident that our stakeholders will again band together despite the current state of civil unrest and uncertainty with regards to the future economic state of the country.

It is the intention of the merSETA to do its level best to meet its commitments as a skill development intermediary and endeavour to exceed on its past performance despite the trying conditions. The merSETA is committed to rebuilding for the country, for mer sector employers, workers, learners and all role players in the skills development landscape.

The merSETA will continue to support the youth, women, people with disabilities, entrepreneurship in aid of Black Industrialists and small businesses. The 4IR (new technologies and new business processes), the green and circular economies and the digital economy are key drivers both locally and globally and our internal systems will be refined in order to effectively and efficiently serve our stakeholders.

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Ms Kate Moloto

Chairperson of the merSETA Accounting Authority

SEARCH PROCESS AND METHODS.

The outbreak of COVID-19 pandemic which resulted to changes in the way of doing work in the labour market prompted the merSETA to find new ways of gathering information which feeds into the SSP. The merSETA also found it significant to unpack new policy imperatives, like National Plan on Post School Education and Training Economic Reconstruction and Recovery Plan and that seek to create an improved integrated post school system and respond to effects caused by the COVID 19 to rejuvenate the economy.

The merSETA conducted different investigations to develop the 2022/2023 Sector Skills Plan. The research includes a combination of qualitative and quantitative methodology approach, incorporating various sampling methods. On one hand, qualitative research focused on the collection of primary data, particularly around the effects caused by the pandemic, to augment information around skills development in the Fourth Industrial Revolution era, and to facilitate discussions on how the industry can effectively respond to the effect of the COVID- 19. On the other hand, the quantitative data research process consisted of the analysis of secondary data which examine the trends by sub-sector, demographic transformation information and spatial location of employers. The main activities which can be seen as part of this process include, amongst others, the analysis of Workplace Skills Plans (WSPs), labour market and industry research projects, Chamber research report findings, desktop research, secondary data analyses, and consultations with the SSP committee, Governance and Strategy Committee and Chamber Committees.

The Workplace Skills Plan forms the largest, most reliable source of information from merSETA stakeholders directly and it is analysed for vacancies, employment information, unfilled vacancies, and number of companies, Pivotal skills plan, OFO codes and Chamber statistics. The WSP data consists information at individual employee level which yields more accurate information with respect to occupations and job titles. The data represents information from over 5000 companies. As mentioned in the cover letter, WSP data further The WSP data includes employer information, Hard to fill vacancy (HTFV) information, Skills Gaps information and training information. Secondary data information was drawn from 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 and others have been included.

Research studies conducted by the merSETA:

Topic	Nature of Study	Purpose	Data Collection Methods	Sample Size/ Data Source	Timeframe
Understanding Green Partnership within the manufacturing,	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.	Workshop, stakeholder interviews	merSETA Stakeholder database, training providers and Chambers	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 merSETA 6 Chambers	Interviews and focus groups	merSETA Stakeholder database	March 2019 – December 2020
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 work-based learning among TVET College students	Case studies, interviews and 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 to 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	Convenience sampling, merSETA contact info	July 2019 – July 2020

MerSETA Covid-19 Stakeholder Survey	Qualitative	Econometric Analysis and Interviews in light of COVID-19	Online survey	merSETA Stakeholder database	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	Chamber committee representatives	August 2020

EXECUTIVE SUMMARY

The 2022/2023 Sector Skills Plan was written at a tumultuous time in the South African economy. The COVID-19 pandemic has wreaked havoc in both social and economic terms. Prior to the pandemic the economy was already taking stain with the sector barely growing at 1% per annum and producing little in terms of job opportunities. The profile of the sector is changing – we see that there are now more small and medium enterprises in our sector and fewer large enterprises. 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 67% of workers. The labour market is also now flooded with skilled retrenched workers as well as skilled newly qualified graduates all competing for the few vacancies available. This is coupled with global trends t remain competitive and issues of the 4IR, the green economy and new business models further compounds the issues that are impacting on the sector and requires careful deliberation in terms of skills planning. As such the merSETA has refined its skills priority actions and will endeavour 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.

The 4IR is a key driver which requires different skills sets. Other key drivers are characterized by the heightened demand for operational health and safety, remote and virtual work arrangements, versatile skills intensity, and demand for stable internet connectivity, amongst others.

Skills supply and demands 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.

The merSETA continue to recognize partnerships as a strategic tool to mobilize 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 strive 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 that operational and organisation performance is effectively maintained.

Ms S. Nomvete

Strategy and Research Executive

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CHAPTER 1: SECTOR PROFILE

1.1 Introduction

This section of the SSP presents the profile of the mer sector. It depicts the scope of coverage in terms of the Standard Industrial Classification (SIC) of its sub-sectors (Chambers), gives an overview of the value chains for each of the Chambers and highlights key role players. Furthermore, the chapter profiles the sector in terms of its economic performance and provides a profile of the employers and employees. The key data sources utilised comprise merSETA WSP data (2021), COVID-19 survey data, Atlas of Occupations, workshop, and interview information as well as desk research emanating from various forms of literature, including sector master plans. It is important to note that the SSP is written in a tumultuous time, more than one year since the onset of the COVID-19 pandemic and its concomitant state of emergency and various levels of lockdown. The pandemic has sought to exacerbate what was already a sector in crisis and the merSETA stakeholders have expressed sentiments that this SSP responds to a sector in a state of crisis and as heading to the Minster of DHET's call to seriously consider the four-fold crisis of the COVID-19 disease, local and global recessionary conditions, weakened socio-economic sustainability which threatens livelihoods and families as well as the pervasive issue of climate change.

1.2 Scope Of Coverage

The sectors under the merSETA' scope of coverage is demonstrated in Figure 1 classified by SIC codes at 1- and 2-digit level. In terms of economic sectors, the merSETA supports activities in manufacturing; wholesale, construction; retail and motor trade; and financial intermediation, insurance, real estate, and business services sectors.

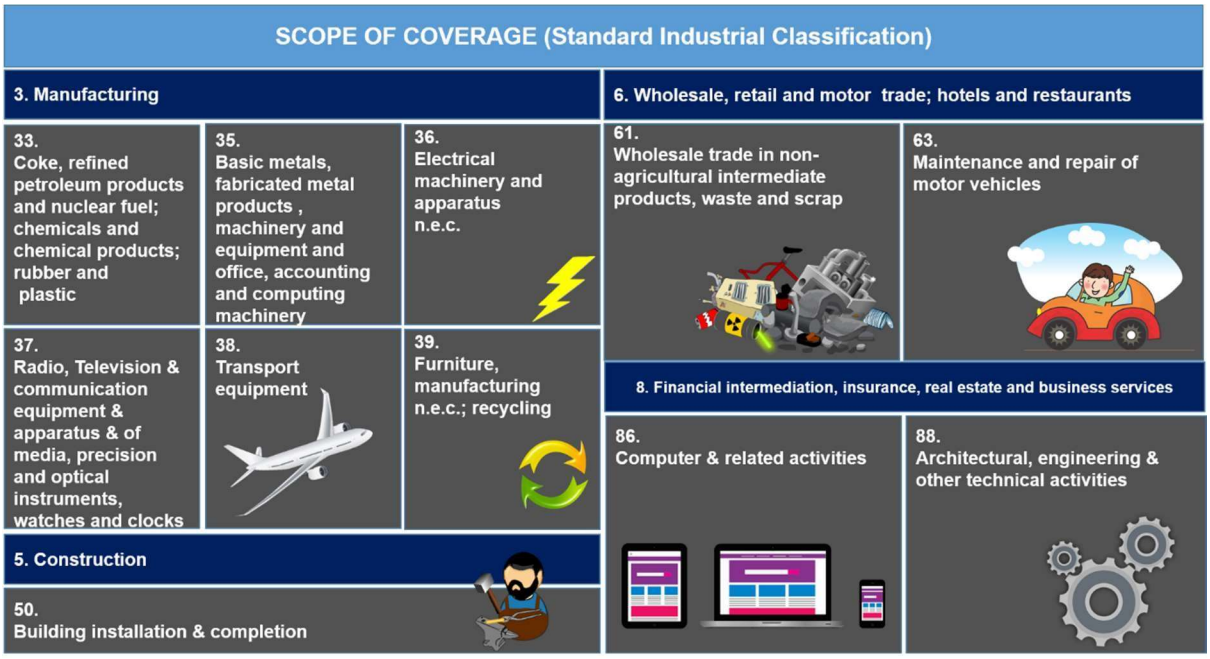

Figure 1 - Sector Scope of Coverage by SIC

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 (see Figure 2).

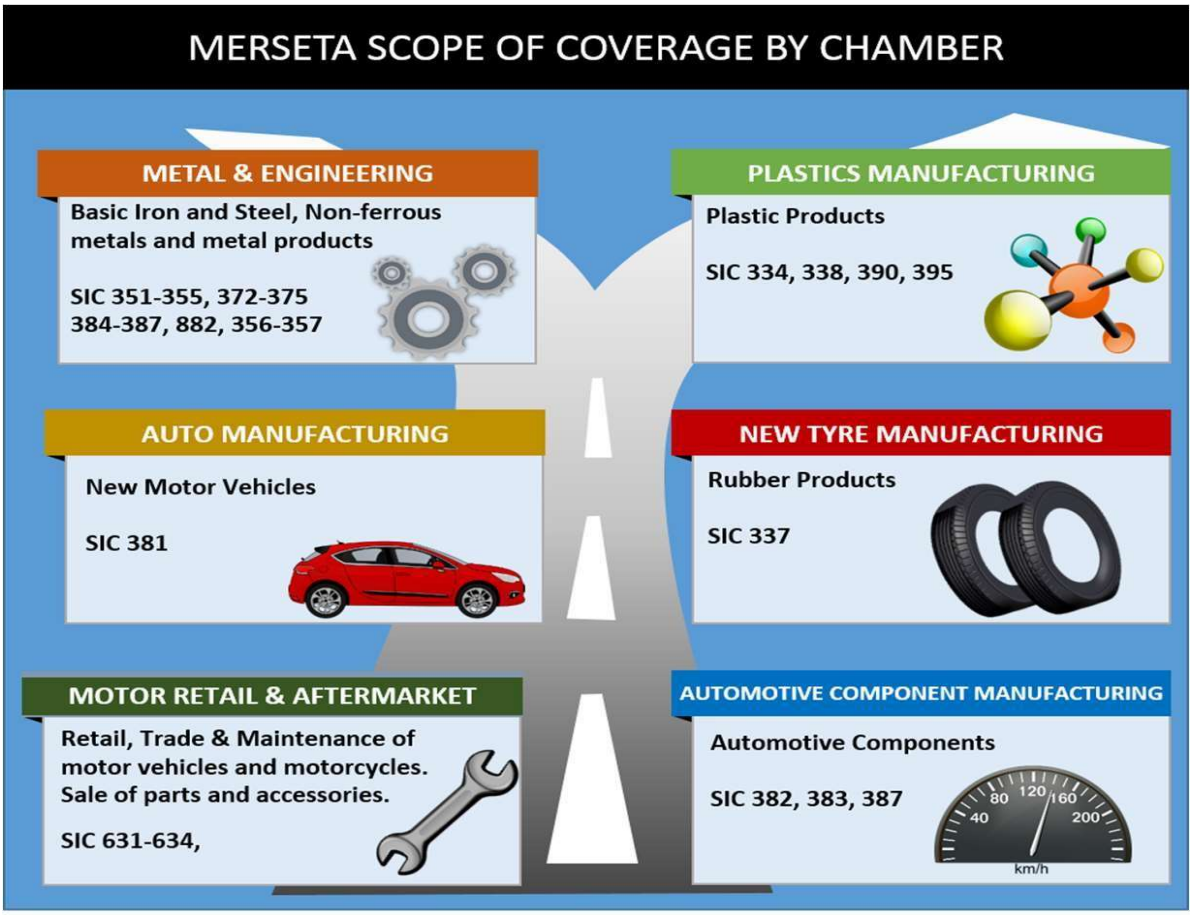

Figure 2 - Scope of coverage by Chamber

Automotive Sector

The automotive sector is the cornerstone of South Africa's industrial base which accounts for over 5% of the country's GDP (Gross Domestic Product)/ All 6 chambers within the merSETA all are associated with the automotive sector as either a direct input such as materials (metal and plastics) or components manufacturing, or the rendering of services associated to the sector such as aftermarket services and sales.

The automotive sector consists of the Original Equipment Manufacturers (OEMs), tyre manufacturing, motor retail and components companies that a linked to each other through the automotive production and distribution value chains. The overall sector value chain is represented in the figure below.

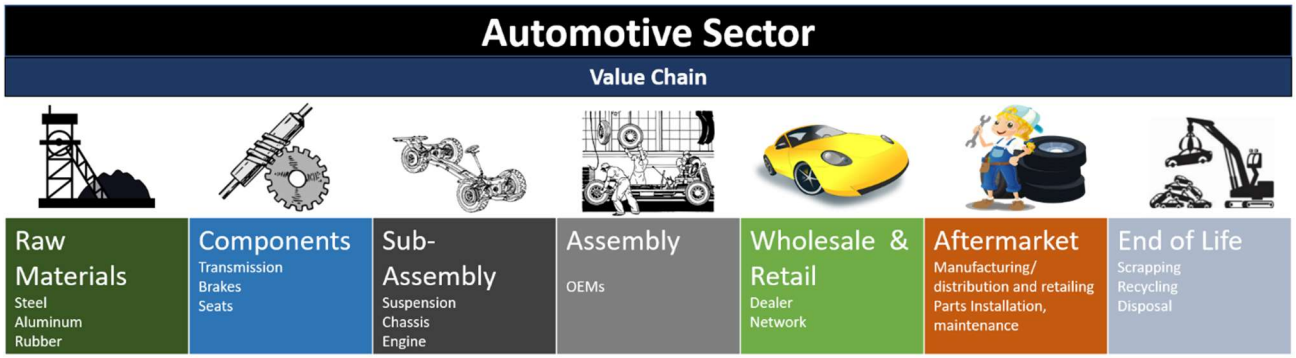

Figure 3: Value Chain for the Automotive Sector

Auto Manufacturing Chamber

Due to the capital requirements and technical nature of producing vehicles there are only a handful of Auto OEMs in South Africa, all of which are international brands (merSETA Supply and Demand Study, 2018). South Africa's main sites for automobile production are the Eastern Cape, specifically Port Elizabeth and East London, Gauteng, specifically Rosslyn and Silverton (Pretoria) and KwaZulu- Natal (KZN), specifically Durban (merSETA Supply and Demand Study, 2018). 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. The diagram further illustrates the intersections of the auto chamber with the components manufacturers whose inputs come from plastics and rubber (tyre) and metal. Once assembled, motor vehicles enter the motor retail market.

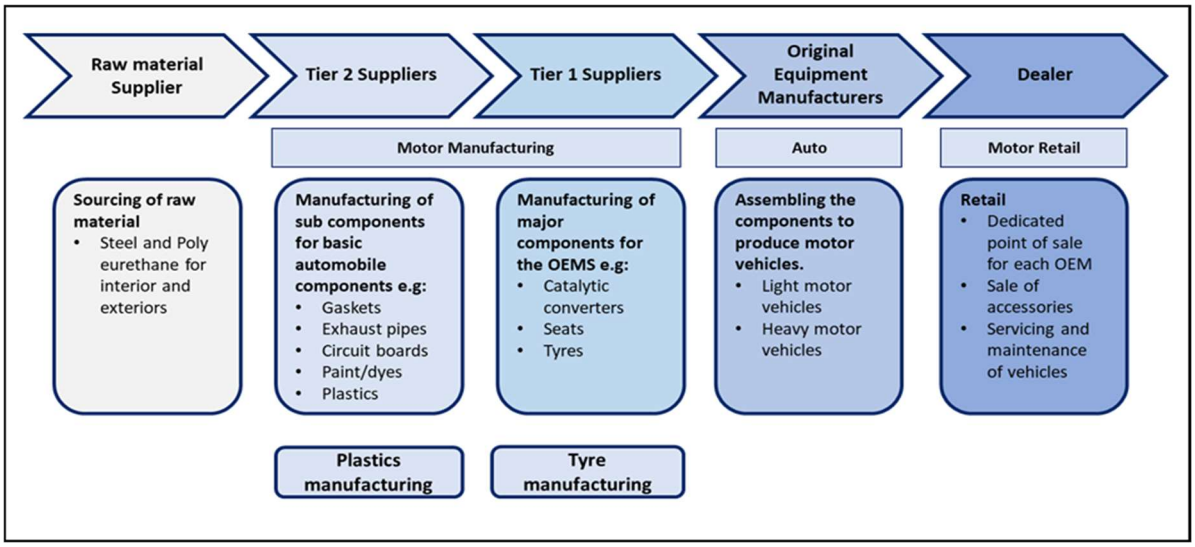

Figure 4: Auto manufacturing Chamber value chain

Automotive Components Manufacturing Chamber

The Automotive Components Manufacturing Chamber comprises manufacturers that produce vehiclecomponents, parts and equipment. Components are sold to independent parts sellers and after service providers. Due to the increased resource needs and skills required to produce some components (i.e., compliance to meet the standards of Auto OEMs), major employers in this sector tend to be larger businesses. Components that are manufactured relate to various phases of the auto value chain from upstream manufacturing of casts to downstream trimming (merSETA Supply and Demand Study, 2018). The components manufacturing sub-sector is one of the key sub-sectors in South Africa's reindustrialisation and localisation efforts. Standard industrial classification of this sector comprises bodies for vehicles, trailers and semi-trailers (SIC 382), parts and accessories for motor vehicles and their engines (SIC 383) and transport equipment (SIC 387).

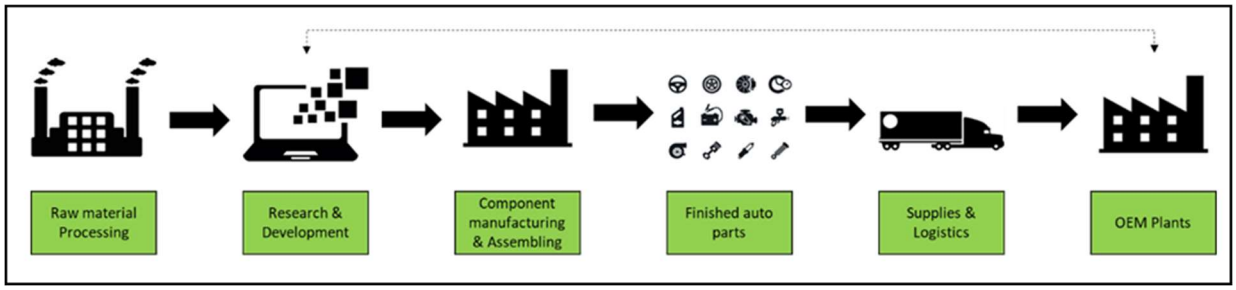

Figure 5: Auto Components Manufacturing Chamber Value Chain.

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 includes Goodyear, Bridgestone, Continental Tyres and Sumitomo Rubber. Standard Industrial Classification is 337 (rubber products) and its value chain is shown below:

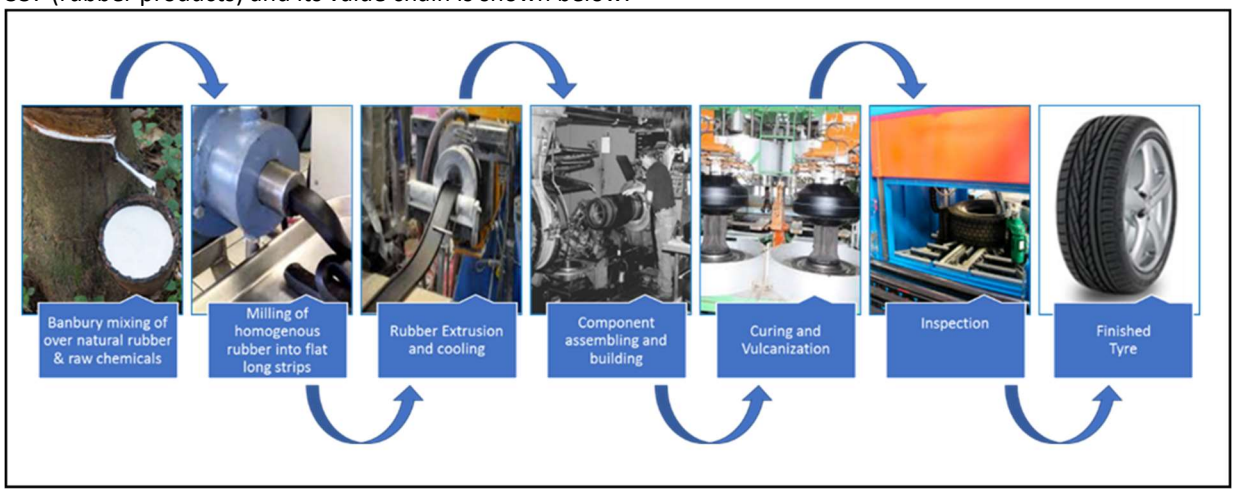

Figure 6: New Tyre Chamber Value Chain

Motor Retail & Aftermarket 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). The value chain for this camber is shown below:

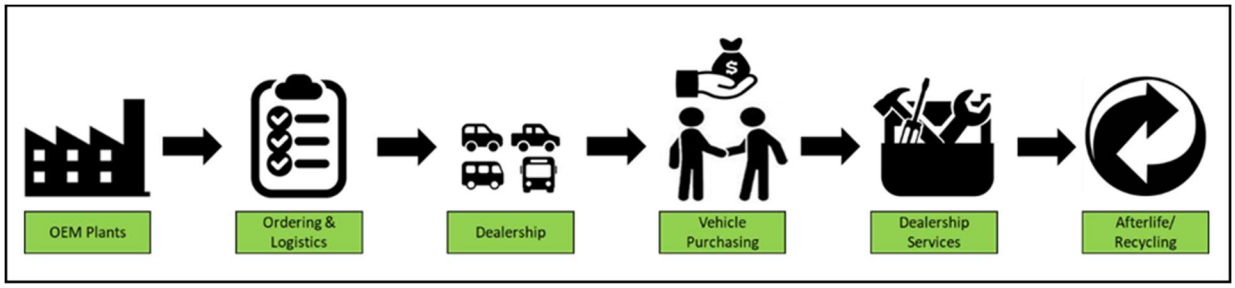

Figure 7: Motor Retail and Aftermarket Value Chain

Metals & 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.

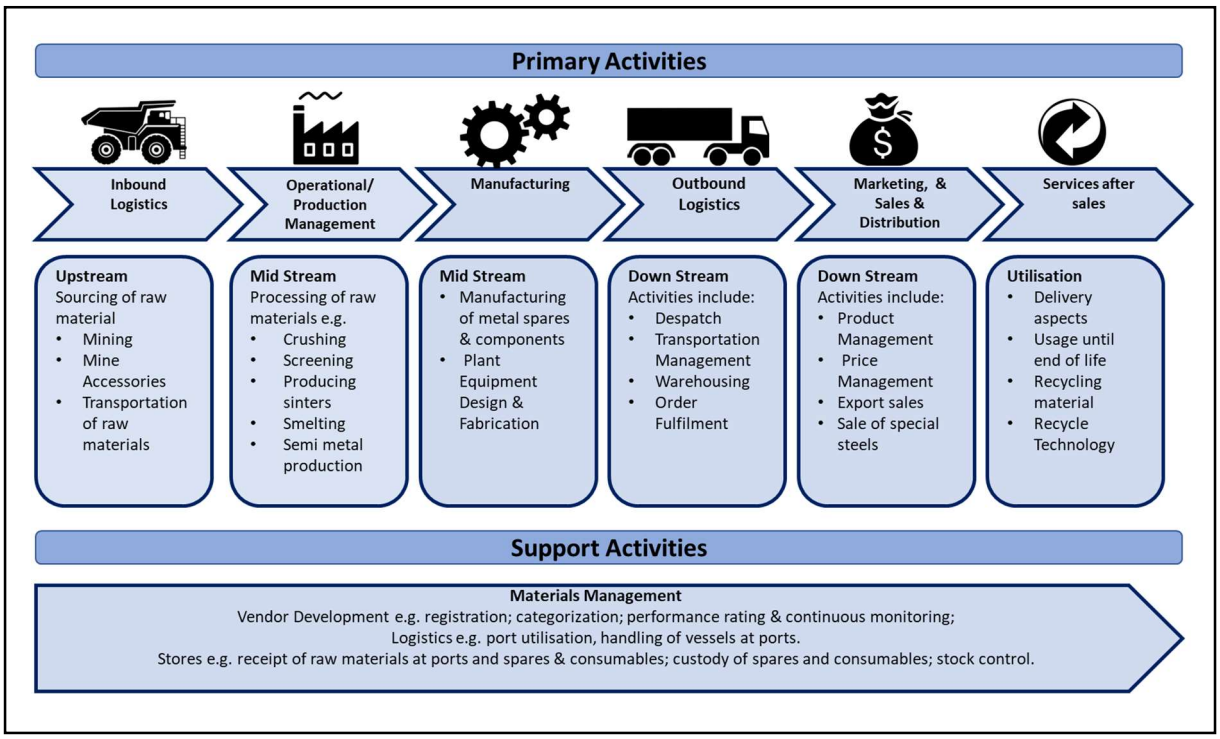

Figure 8: Metals and Engineering Chamber Value Chain

Plastics Chamber

Plastics sector is well developed and is one of the most dynamic industries in South Africa. It is comprised ofpolymer producers and importers, converters, machine suppliers, fabricators and recyclers that caters for both domestic and international markets. The leading markets for plastics in South Africa are packaging, building and construction, and the automotive industries (DTI, 2019). Plastics are used in a vast array of different applications such as preserving and protecting food and medicines, electronic devices like computers and smartphones, helping make transport more fuel-efficient.

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 as depicted in the figure below which also outlines the basic value chain.

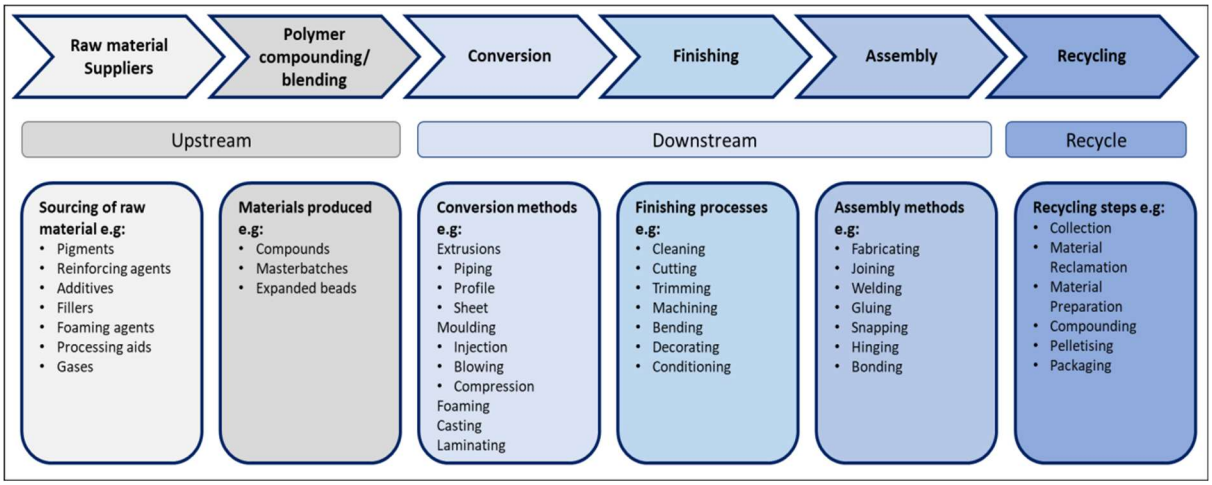

Figure 9: Plastics Chamber SIC & Value Chain.

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).

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.

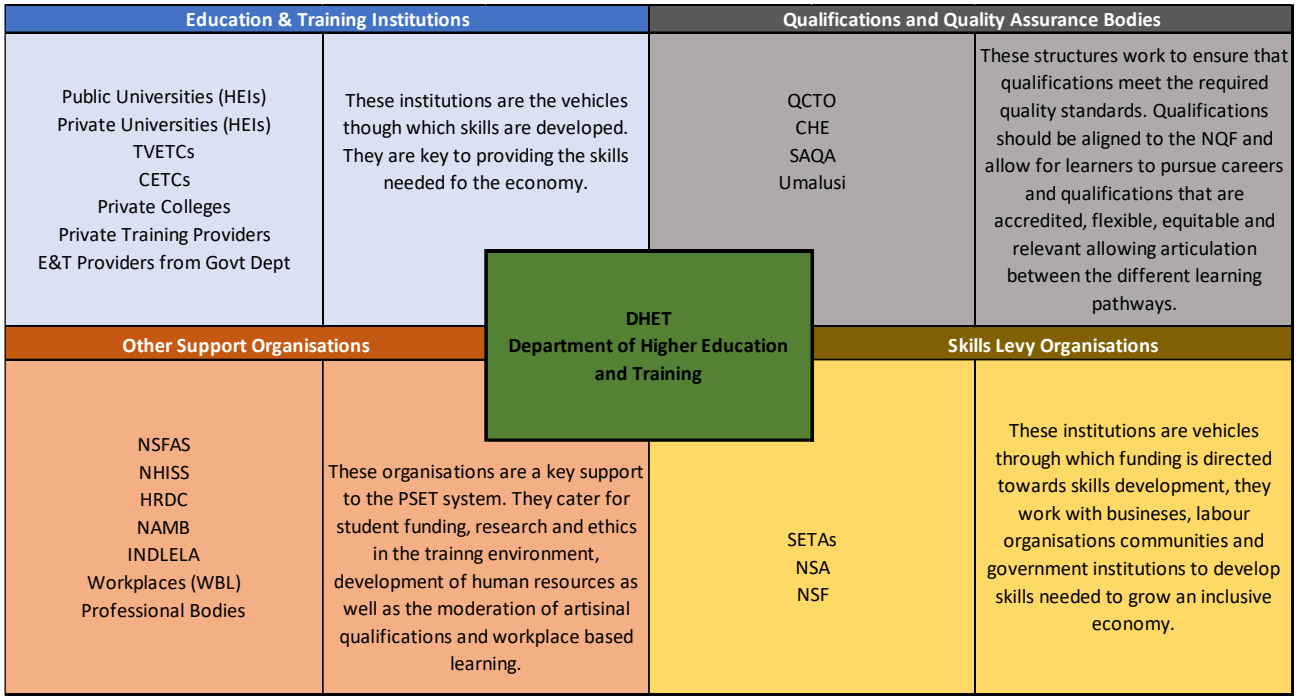

Figure 10: PSET Sector Role Players

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 role players.

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.

Table 1 - Key Role Players in PSET

ORGANISATION TYPE	NAME OF ORGANISATION	ROLE
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.
	Department of Trade and Industry (DTI)	
	Department of Science and Technology (DST)	
	Department of Environmental Affairs (DEA)	
	Department of Planning, Monitoring & Evaluation	
	Department of Small Business Development	
Education and Training Institutions	Higher Education and Training Institutions	These training institutions are responsible for skills provision to the labour market. They are the key delivery mechanisms for a differentiated PSET system and should be supported to provide. skills to support economic growth.
	TVET Colleges	
	Community Education and Training Colleges	
Employer Organisations	The Steel and Engineering Industries Federation of Southern Africa (SEIFSA)	Employer organisations represent members in collective bargaining, data and information gathering and skills development. In line with many of the national priorities, these organisations are important for the regulation of the sector as well as ensuring the interests of employers and workers.
	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)	
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.
Bargaining Councils	National Bargaining Forum (NBF)	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).
	Metal and Engineering Industries Bargaining Council (MIEBC)	
	Motor Industry Bargaining Council (MIBCO)	
	Bargaining Council for the New Tyre Manufacturing Industry	

ORGANISATION TYPE	NAME OF ORGANISATION	ROLE
Labour Organisations	National Union of Metalworkers South Africa (NUMSA)	
	Chemical Energy Paper Printing Wood and Allied workers Union (CEPPWAWU)	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.
	Metal and Electrical Workers Union of South Africa (MEWUSA)	
	Solidarity	
	LIMUSA (Metal Workers Trade Union)	
	United Association of South Africa (UASA)	
	Motor Industry Staff Association (MISA)	
Civil Society	Non-governmental Institutions (NGOs)	These organisations play a significant role in communities and assist the state in terms of providing services required by the community. These organisations are partners for skills. development within communities.
	Community Based Organisations (CBOs)	
	Faith Based Organisations (FBOs)	

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

NSDP Outcomes	Link to Role Players
Outcome1: Identify and increase production of occupations in high demand.	By partnering on key research projects with employers, HEI institutions and analysing the WSP/ATR information merSETA is able to identify and support occupations in high demand.
OUTCOME 2: Linking education and the workplace.	Almost all of the merSETA interventions have a WBL component which provides invaluable experience and skills for learners. This is made possible by partnering with the PSET institutions and employers.
OUTCOME 3: Improving the level of skills in the South African workforce **OUTCOME 4: Increase access to occupationally directed programmes**	The PSET role players as well as merSETA employers, TVET, HEI and trade unions all play a rle in ensuring that skills interventions are improving skills levels particularly through pathways and articulation and linking them to the workplace requirements for skills

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

1.4 Economic Performance

The South African economy encountered the pandemic after several years of low growth, as the country's economic growth continues to fall below what is required to encourage sustainable job creation. The country had been experiencing recessionary conditions since the second quarter of 2019.

In terms of GDP, South Africa's growth has slowed since the end of the international commodity boom in 2011, and immediately prior to the COVID-19 pandemic reached its lowest level since the 2008/9 global financial crisis. This preCOVID-19 economic weakness was because of weak domestic demand, electricity supply constraints and increasingly harsh and frequent droughts with the intensification of the climate crisis (TIPS REB, Q4 2019). It was further exacerbated by COVID-19.

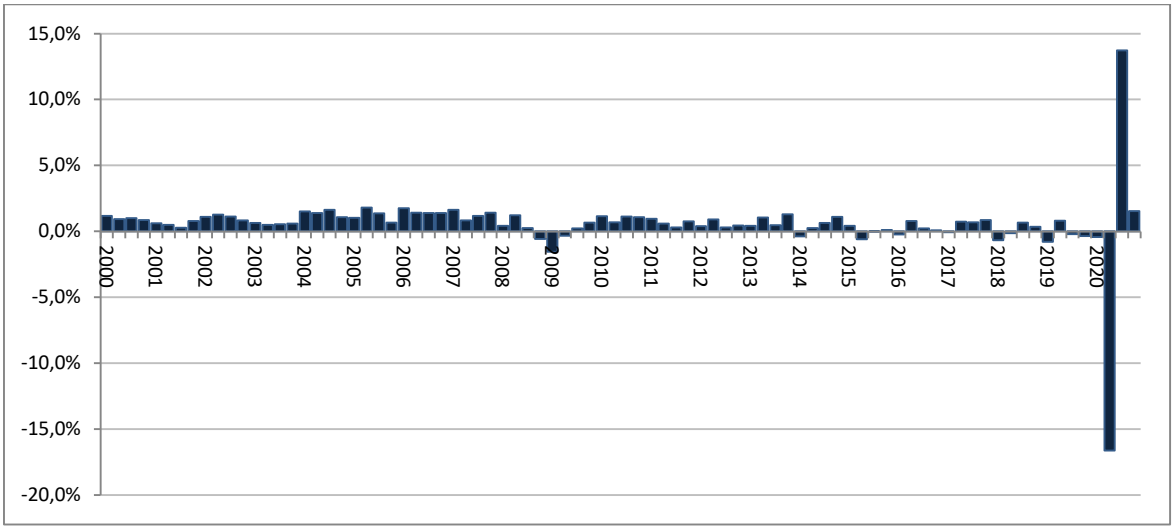

Figure 11: Quarterly change in GDP, seasonally adjusted, 2000 to fourth quarter 2020 (TIPS study, 2021)

South Africa's GDP declined by an unprecedented 7% in 2020 due to the pandemic. In the second quarter of 2020, there was a sharp contraction of 17% (see figure above), which was followed by growth of 14% in the third and 1.5% in the fourth quarter of 2020 (TIPS REB, Q4 2020). International experience highlighted that the more effective the containment measures in response to the COVID-19 pandemic, the faster the economic rebound to pre-COVID-19 economic activity, except in certain sectors that are dependent on social interaction (i.e. tourism, bars, nightclubs, conferencing etc.).

From a sectoral perspective, lower output levels were experienced by most key sectors of the economy except for agriculture and general government in 2020, as a result of the significant fall in Q2 2020.

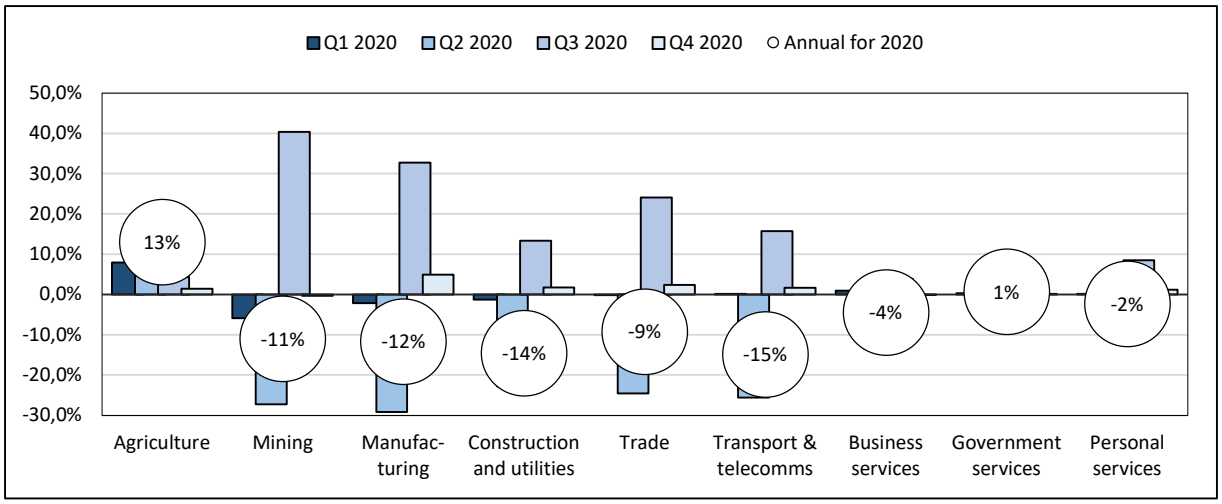

Figure 12: Quarterly and annual change in sectoral contribution to GDP, 2020 (TIPS, 2021)

In 2020, manufacturing GDP fell by 12% driven mainly by lower output levels of key sub-sectors such as motor vehicles and parts, iron and steel and chemicals. Mining dropped by 11% in 2020, continuing the downward trend largely driven by long-term decline in gold mining. Both manufacturing and mining experienced some of the largest declines in the second quarter of 2020, decreasing by 29% and 27% respectively, as the strict lockdown implemented in late March resulted in factories specialising in the production of metals, machinery and chemicals stopping production. The utilisation of production capacity in manufacturing dropped to 59.8% in the second quarter of 2020, recovering the second half of the year. By the fourth quarter of 2020 utilisation of manufacturing's production capacity had substantially improved to 79.3%; although it is still below the 81.1% levels of Q4 2019 the rebound in production capacity to almost pre-COVID-19 levels is important to note.

In manufacturing, overall yearly sales decreased by 10% in 2020 compared to 2019, with all 10 manufacturing sub-sectors recording negative growth rates. As evident from graph 4, most manufacturing sectors had returned to pre-COVID-19 levels by the 4th quarter of 2020. The largest negative contributors were motor vehicle, parts and transport equipment (-18.9%), textiles, clothing, leather and footwear (-17.5%) and furniture (-16.5%). According to the National Association of Automobile Manufacturers South Africa (NAAMSA), the sharp decline in vehicle sales in 2020 is largely linked to the impact of the COVID-19 pandemic, supply chain disruptions and subsequent lockdown, which saw the domestic new vehicle market dropping back to sales levels of two decades ago; with a rapid rebound in Q4. Recently released data by NAAMSA (in June 2021) shows the May 2021 figures with a 44.9% year on year growth in domestic sales, and 67.2% year on year growth in vehicle exports. (www.naamsa.net) These figures show both the extent of the slowdown on motor vehicles sales and exports during the initial lockdown, as well as the significant rebound in both.

1.4.1 Automotive Sector

The automotive industry contributes around 6.4% to GDP, comprising 4.0% manufacturing and 2.4% retail (Automotive Export Manual, 2020). In 2019, the industry recorded investments of R7.3 billion by the seven OEMs with further commitments of R40 billion up to 2025.

Based on the statistics released in March 2021, as expected new vehicle market turnaround has commenced. Domestic sales in March 2021, were at 44 217 units, reflected a substantial increase of 10 671 units, or 31,8%, from the 33 546 vehicles sold in March last year. Export sales also recorded a substantial increase in March 2021 and at 40 026 units reflected a gain of 11 137 units, or 38,6%, compared to the 28 889 vehicles exported in March 2020. One needs to take into account that vehicle sales at the end of March 2020 were brought to a standstill due to the national lockdown These statistics do represent an encouraging sign for the automotive value chain (manufacturing, sales, repair etc.) in South Africa. The local vehicle sales for March 2021 are displayed below per category, compared to the local vehicle sales in March 2020.

Figure 13: Local Vehicle Sales March 2021 and March 2020 (NAAMSA, 2021)

According to NAAMSA CEO Mikel Mabasa "the industry is expected to start recapturing lost demand on its recovery path in 2021, considering the close correlation between new vehicle sales and the country's anticipated annual GDP growth rate in excess of 3%". Mikel Mabasa also mentioned that new vehicle sales in 2021 may suffer from stock shortages of some models in the coming months, possibly caused by COVID-19 induced manufacturing supply chain disruptions, which seems to be a global trend. The current increase in vehicle exports over the first three months of 2021 are very encouraging with an increase of 16,8% compared to the same period last year. This increase in exports may be due to the global economic rebound.

The South Africa automotive master plan will govern the local motor industry from 2021 to 2035. The SA automotive master plan objectives include the production of 1.4 million vehicles per annum by 2035, doubling of manufacturing employing and the transformation of the industry value chain and increasing the local content in locally produced vehicles from 39% currently, to 60% by 2035 (Metalworking,2020). This master plan was scheduled to be launched in January 2021, but both the industry and the government are not ready due to COVID-19. The launch for the SA automotive master plan has been postponed for July 2021. The postponement gives room for analysis as to what could be improved in the objectives of the master plan as they were set out 3 years back during the “normal world” (Metalworking,2020).

The automotive components manufacturing chamber experienced negative growth in the 2020 COVID-19 pandemic year. Before that, parts and accessories, office, accounting, computing machinery and motor vehicles experienced growth from 2018 into the 2019 recession.

1.4.2 Plastics Sector

The plastics manufacturing chamber had been experiencing low growth before the 2020 COVID-19. Plastic products had been experiencing growth from 2017 to 2019 with it being the only one doing so in the 2019 recession period. However, the entire plastics chamber experienced negative growth in the year of 2020 (Figure E).

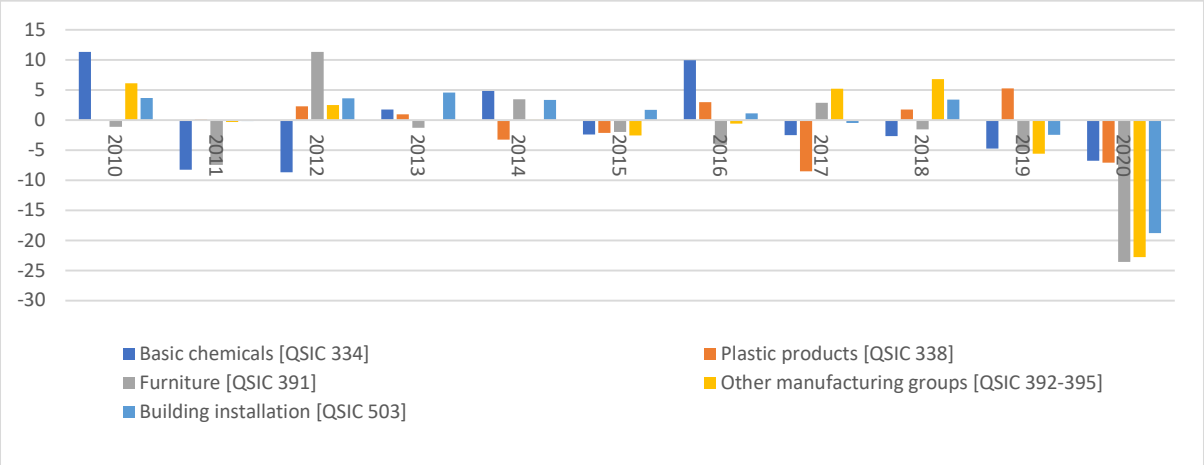

Figure 14: Yearly change in plastics manufacturing GDP, annually 2010 to 2020 in millions of constant 2010 rand (Quantec RSA Economic Data (Stats SA))

When looking at how COVID-19 has affected this chamber, we see that production experienced a sharp drop in the first quarter of 2020 coinciding with the hard lockdown experienced that year. However, we see an equally sharp rebound in the second quarter. While some of the products in the plastic manufacturing chamber continued to experience increases production volumes and insulated wire and cables experienced reductions from the third quarter into the fourth.

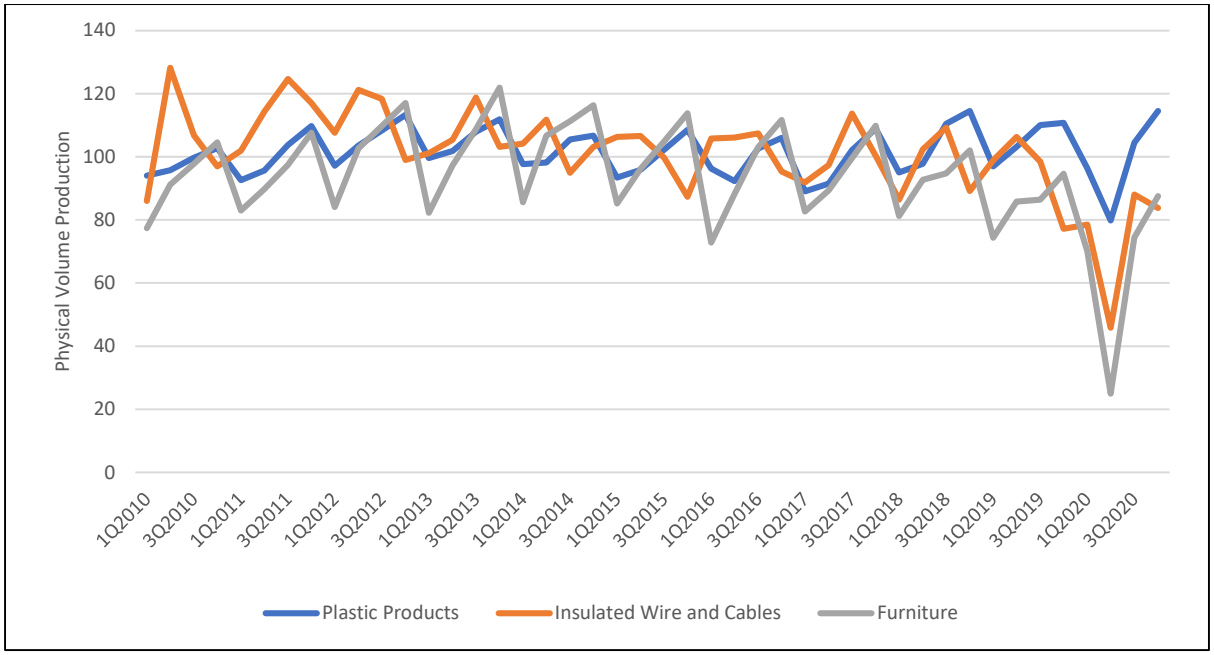

Figure 15: Plastic Manufacturing, Physical Volume of Production, quarterly 2010 to 2020 (Quantec RSA Economic Data (Stats SA))

As part of government's Industrial Policy Reimagined, a Plastics Industry Master Plan is being developed to put the industry on a growth trajectory the process has been undertaken in close collaboration with Plastics SA. 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 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).

1.4.3 Metal Sector

The metals and engineering chamber had been experiencing low growth before the 2020 COVID-19. Conversely, non-ferrous metal products, machinery and equipment, computer and related services and structural metal products had been experiencing growth even during the recession South Africa had been experiencing since the second quarter of 2019. However, the entire metals chamber experienced negative growth in the year of 2020 (TIPS REB, Q4 2019).

The South African steel industry "suffers from structural problems" that existed before COVID-19, with "a slow and gradual degradation of the country's economic environment" making the local steel industry increasingly uncompetitive (Engineering News, 2020b). As shown in Figure below, the various industry components have been on a declining trend since 2018.

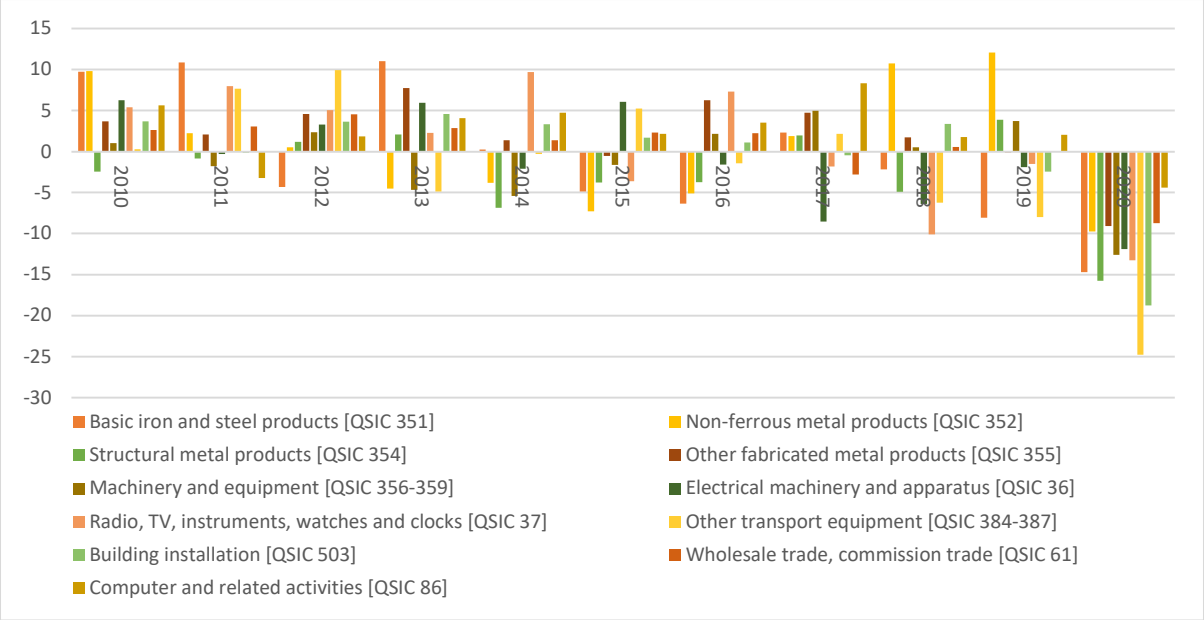

Figure 16 Yearly change in metals and engineering GDP, annually 2010 to 2020 in millions of constant 2010 rand (Quantec RSA Economic Data (Stats SA))

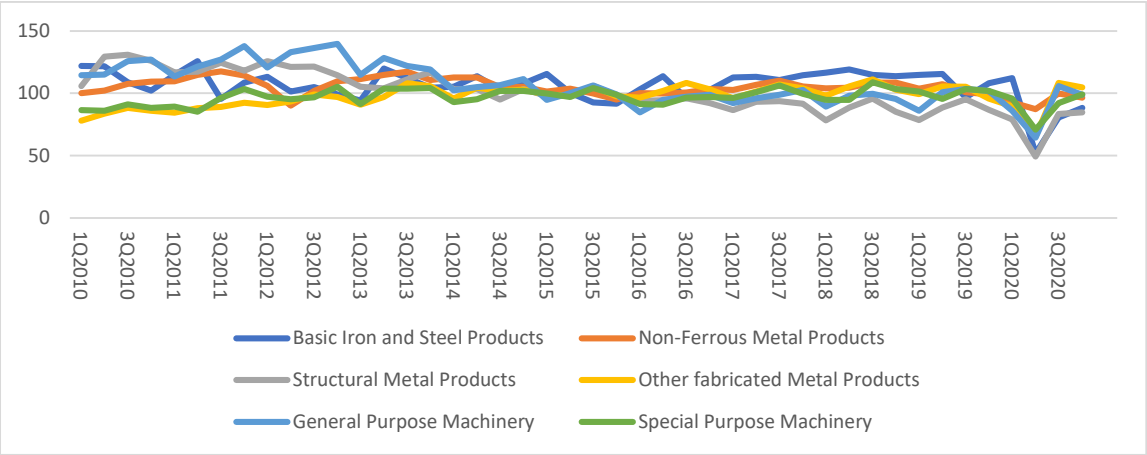

Figure 17: Metals and Engineering Physical Volume of Production [Index 2015 = 100], quarterly 2010 to 2020 (Quantec RSA Economic Data (Stats SA))

The global outlook is however mixed. Over the past year the steel price initially went down during the global lockdown, however, things soon changed with the various stimulus measures taking off. Many of these measures across the globe (particularly the USA and China) included infrastructure development, which caused the demand and price of steel to escalate. This increase in demand has had a knock on impact on the demand for (and price of) iron ore.

The situation in South Africa has been complicated by the challenges faced by AMSA, which has resulted in a shortage of steel in the domestic market. That shortage alongside high tariffs has had a negative impact on the downstream steel industry. These issues amongst others are under consideration in the steel master plan.

1.4.4 New Tyre Sector

In the wake of the COVID-19 aftermath, pricing increases are common strategies used by companies. The New Tyre sector should be aware of the impact this will have on the used tyre market, there may be an increase in the demand for used tyres, which may be a concern for the sector. The South African

Tyre Manufacturing Conference (SATMC) strongly support the introduction of a minimum compulsory safety standard to regulate the sale of used tyres, in attempt to curb the sale of illegal tyres (not fit for road use) (Engineering News, 2019)

1.5 Employer Profile

WSP data collected in the 2021 mandatory grant window yielded responses from a toral of 5087 entities however 447 (9%) of those were either companies outside of the merSETA scope of coverage or training providers, non-profit organisations, universities and TVET colleges. Those entities outside of the scope of coverage have been excluded from the employer profile statistics. This section therefore reports on the remaining 4640 entities.

More than half of all enterprises are represented by the metals chamber followed by the motor retail chamber at 35%1. The plastics sector is represented by 8% of the companies and the ACM sector by 2%. The auto sector (assembly) and new tyre sectors comprise of 12 and 8 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

Chamber	Small (1 - 49)		Medium (50 - 149)		Large (150 +)		Total Companies	
	No.	% (row)	No.	% (row)	No.	% (row)	No.	% column
ACM	51	45%	25	22%	38	33%	114	2%
Auto					12	100%	12	0%
Metal	1594	63%	594	24%	332	13%	2520	54%
Motor Retail	1194	73%	312	19%	126	8%	1632	35%
New Tyre	3	38%		0%	5	63%	8	0%
Plastics	153	43%	128	36%	73	21%	354	8%
Grand Total	**2995**	**65%**	**1059**	**23%**	**586**	**13%**	**4640**	**100%**

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

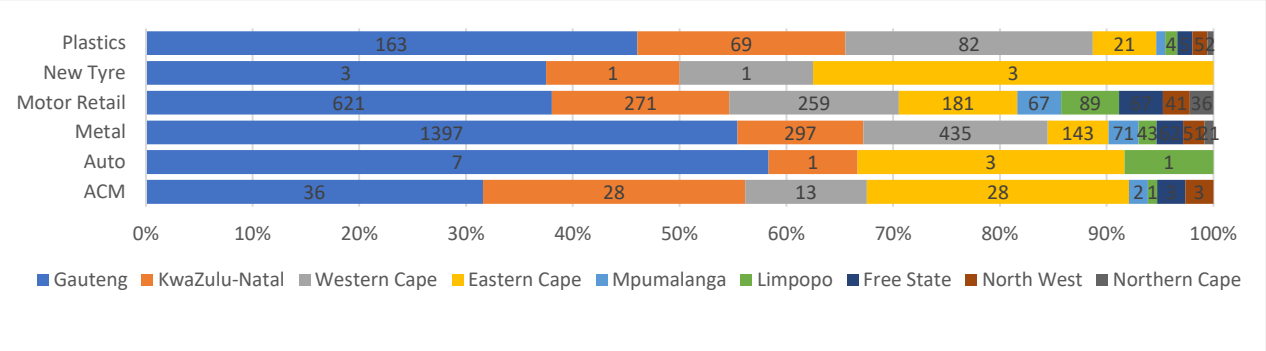

Figure 18: Enterprises by Chamber and Province

[1] The motor retail chamber appears larger than in previous years, this is due to the fact that many of these companies were previously assigned to the ACM (Automotive Components Manufacturing) Chamber as well as the New Tyre Chamber.

1.6 Labour Market Profile

In total, the WSP data yielded 4640 enterprises in the merSETA scope of coverage. These companies employ well over 400 thousand 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 and contract workers (both employed and unemployed).

Table 3: Number of Employees by Company Size and Chamber

Chamber	Small (1 - 49)		Medium (50 - 149)		Large (150 +)		Total Companies	
	No.	% (row)	No.	% (row)	No.	% (row)	No.	% column
ACM	1232	5%	2375	10%	20490	85%	24097	5%
Auto		0%		0%	24210	100%	24210	5%
Metal	36209	14%	50914	20%	166928	66%	254051	54%
Motor Retail	24368	20%	26110	21%	71718	59%	122196	26%
New Tyre	29	1%		0%	5153	99%	5182	1%
Plastics	4261	10%	11383	27%	26132	63%	41776	9%
Grand Total	**66099**	**14%**	**90782**	**19%**	**314631**	**67%**	**471512**	**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.2

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

In terms of 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 4: Employees by Occupation Category

OFO Level	Occupation Category	Employees	%
1	MANAGERS	42776	9%
2	PROFESSIONALS	27998	6%
3	TECHNICIANS AND ASSOCIATE PROFESSIONALS	44414	10%
4	CLERICAL SUPPORT WORKERS	47256	10%
5	SERVICE AND SALES WORKERS	25348	5%

2 Additional information has been sources on retrenchment statistics which will be incorporated for the final SSP submission in August.

6	SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	87828	19%
7	PLANT AND MACHINE OPERATORS AND ASSEMBLERS	102076	22%
8	ELEMENTARY OCCUPATIONS	83360	18%
Total		**461056**	**100%**

The same trends prevail across the chambers, relative to the previous year, there is a concentration of workers at lower OFO levels despite previously reporting a demand for higher level skills.

Table 5: Employment level by Chamber

Occupation Category	ACM	Auto	Metal	Motor Retail	New Tyre	Plastics	Total
MANAGERS	6%	10%	8%	13%	10%	7%	9%
PROFESSIONALS	5%	9%	7%	4%	6%	3%	6%
TECHNICIANS AND ASSOCIATE PROFESSIONALS	14%	9%	11%	7%	8%	7%	10%
CLERICAL SUPPORT WORKERS	11%	6%	10%	13%	6%	9%	10%
SERVICE AND SALES WORKERS	3%	6%	3%	13%	3%	2%	5%
SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	24%	15%	21%	18%	9%	11%	19%
PLANT AND MACHINE OPERATORS AND ASSEMBLERS	28%	44%	21%	14%	42%	34%	22%
ELEMENTARY OCCUPATIONS	10%	2%	19%	18%	17%	27%	18%
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. There does however seem to be some progress int terms of the proportion of black women in higher ranking positions. Most female employees however are clerical workers. Very few women are artisans/skilled trades workers.

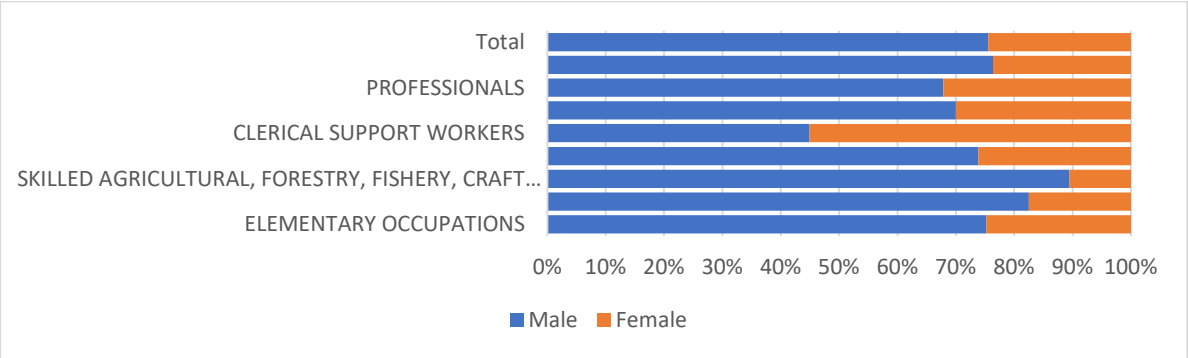

Figure 19: Gender Breakdown by Occupational Level

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 60% of merSETA employees are Black African, more than a fifth (21%) are white. Black Indians/Asians constitute 5%, 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 20: Race and Gender Profile

Race	Male		Female		Total	
	Employees	%	Employees	%	Employees	%
Black African	214449	62%	62696	56%	277145	60%
White	70955	20%	26938	24%	97893	21%
Coloured	42807	12%	16730	15%	59537	13%
Indian / Asian	18221	5%	6315	6%	24536	5%
Grand Total	**346432**	**100%**	**112679**	**100%**	**459111**	**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.

Table 6: Race and Occupation Level

OFO Level	Occupation Category	Black African	Coloured	Indian / Asian	White	Grand Total
1	MANAGERS	3%	6%	19%	26%	9%
2	PROFESSIONALS	4%	4%	11%	12%	6%
3	TECHNICIANS AND ASSOCIATE PROFESSIONALS	7%	9%	13%	15%	10%
4	CLERICAL SUPPORT WORKERS	8%	12%	16%	14%	10%
5	SERVICE AND SALES WORKERS	4%	6%	9%	8%	6%
6	SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	20%	21%	15%	17%	19%
7	PLANT AND MACHINE OPERATORS AND ASSEMBLERS	30%	22%	12%	4%	22%
8	ELEMENTARY OCCUPATIONS	24%	20%	6%	4%	18%
Grand 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.

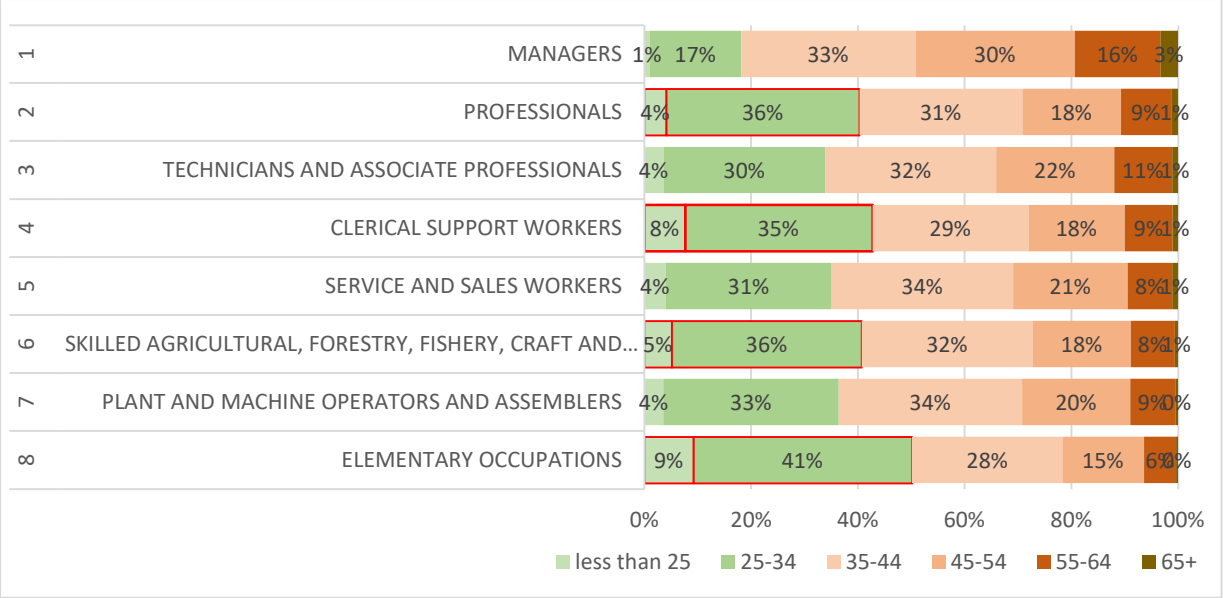

Figure 21: Age and Occupational Level.

In terms of disability, merSETA organisations employ approximately 6200 disabled people, less than 1% of all employees. The majority are unspecified disabilities (45%) followed by physical and cognitive/intellectual disabilities, hearing and sight as seen in the figure below.

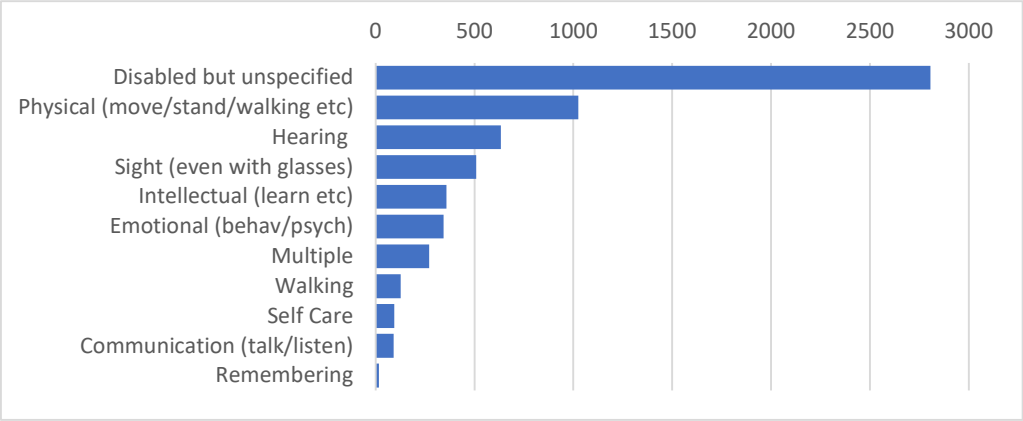

Figure 22: Employees with Disabilities

In terms of the occupations of employees with disabilities, the majority are clerical workers (26%), machine operators (18%) and elementary workers (14%).

Table 7: Occupational Level of Employees with Disabilities

OFO Level	Occupation Category	No.	%
1	MANAGERS	520	8%
2	PROFESSIONALS	487	8%
3	TECHNICIANS AND ASSOCIATE PROFESSIONALS	572	9%
4	CLERICAL SUPPORT WORKERS	1661	**26%**
5	SERVICE AND SALES WORKERS	232	4%
6	SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	748	12%
7	PLANT AND MACHINE OPERATORS AND ASSEMBLERS	1155	**18%**
8	ELEMENTARY OCCUPATIONS	901	**14%**
Grand Total		**6276**	**100%**

1.7 The Social Economy

The Social Economy is 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 (Green paper, 2019). As part of the profile of its sector, the merSETA is cognisant of the social economy and the role played by enterprises in the small, medium, and micro sector, the cooperatives sector and the informal sector. In these sectors we find marginalised people who tend to live in poverty and embark on activities for survival, the youth and women make up a substantial proportion of this sector. About one in every six people in South Africa finds themselves in the informal sector and the COVID-19 pandemic is set to increase this statistic.

In terms of the small and micro enterprise sector, primary research data suggests that enterprises span the spectrum of formal yet low scale to informal and survivalist. They are employers to a very small workforce and can be sole traders or have one or two employees. In the mer sector there is also a space in which entrepreneurs can be classified as leaders, creators and innovators, however they require special support to become successful.

Entrepreneurship and being entrepreneurial is something that has become synonymous with small business development and allowing people to access some sort of livelihood. Primary data from the merSETA youth diaries study has shown that youth have qualifications, skills and experience in the mer sectors, yet they are unable to access formal employment or to formalise their businesses. Coupled with this is evidence that these enterprises are entrenched in the community through family and social networks, making the social economy a central issue in terms of support.

More than just training is needed, people in these sectors require access to information and funding. Many have expressed little knowledge of the merSETA and its programmes. An ecosystem approaches.

1.8 Conclusion

Under the constraints of the COVID-19 pandemic, the mer sector is under immense strain, more so than previously reported in the 2019 financial year. 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.

Concerning is the fact 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.

CHAPTER 2 KEY SKILLS CHANGE DRIVERS

2.1 Introduction

The COVID-19 pandemic has tended to expedite the effects of the 4IR on the manufacturing sector. As this is a global phenomenon it would be remiss not to review some of the global drivers of change across the global economy and reflect on how these have implications for skills development in the future. Therefore, this chapter starts by introducing the global megatrends that should be considered for skills planning, it then examines the key drivers for the mer sectors and their implications for skills development. This should elucidate the drivers identified in the previous iteration of the SSP update[3], giving a clearer focus on future trends. The chapter provides an overview of the key polices and strategies shaping skills development and the development of the mer sector. New economic and social policies, including the South African Economic Reconstruction and Recovery Plan (ERRP) are discussed as these also have implications for skills development. This chapter is informed by desk research as well as primary COVID-19 research conducted for the mer sector.

2.2 Factors Affecting Demand and Supply

2.2.1 Global Megatrends that will impact on the South African Economy

A megatrend is an underlying force or influencer that drives change in global markets it culminates in an emerging pattern of change that impacts how global citizens live and work. Peter Fisk (2019) outlines 5 megatrends that articulates the patterns of change we are currently witnessing in global markets and societies. According to McKinsey (in Fisk, 2019), analysis has shown that being aware and navigating the changes brought about by industrial and geographic trends contributes to business results and ultimately economic performance. The figure below outlines the 5 megatrends identified and briefly explains them. The nature of careers is changing, that most citizens will not follow a linear career path and that there will emerge eve widening sills gaps and skills mismatches, this is demonstrated in the figures below.

3 Key drivers identified in the 2021/22 update include reindustrialisation and localisation, new and emerging technologies, environmental sustainability, supporting the transformation and diversity agenda and changing customer needs and expectations

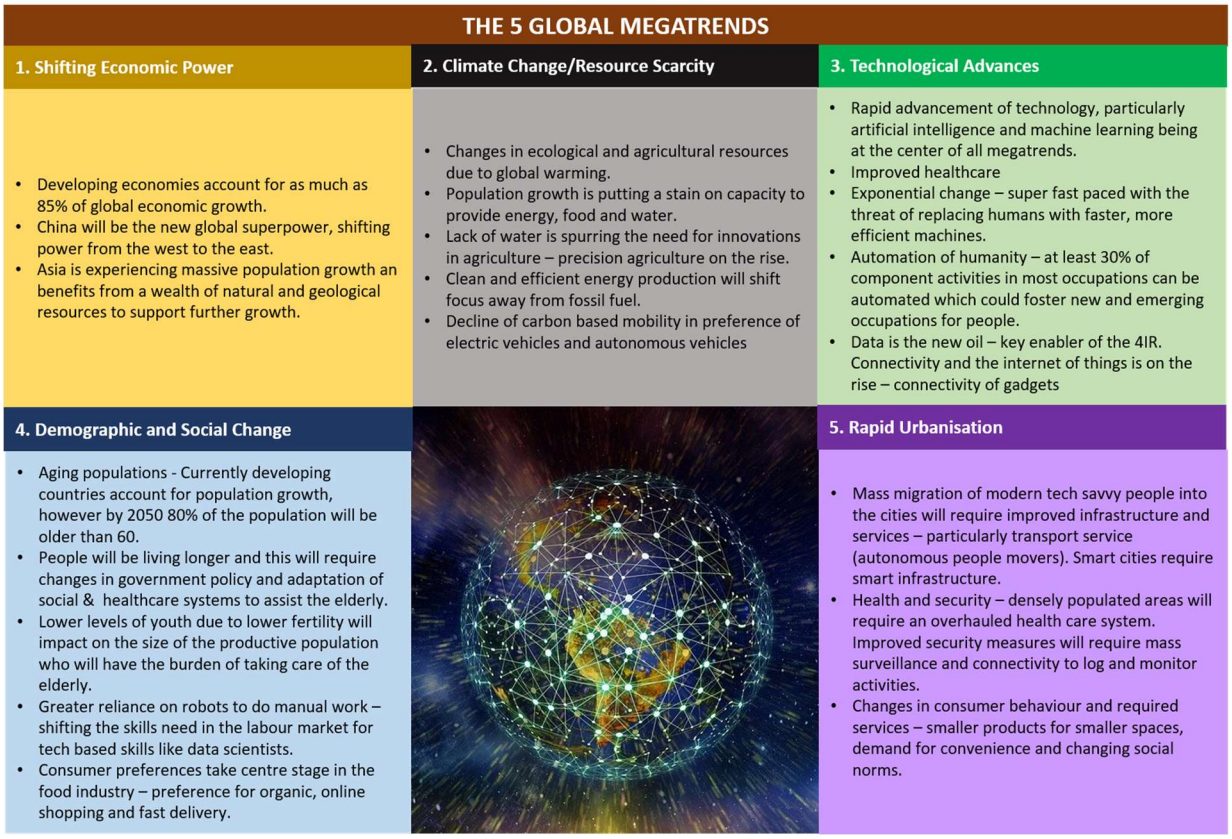

Figure 23 - Global Megatrends

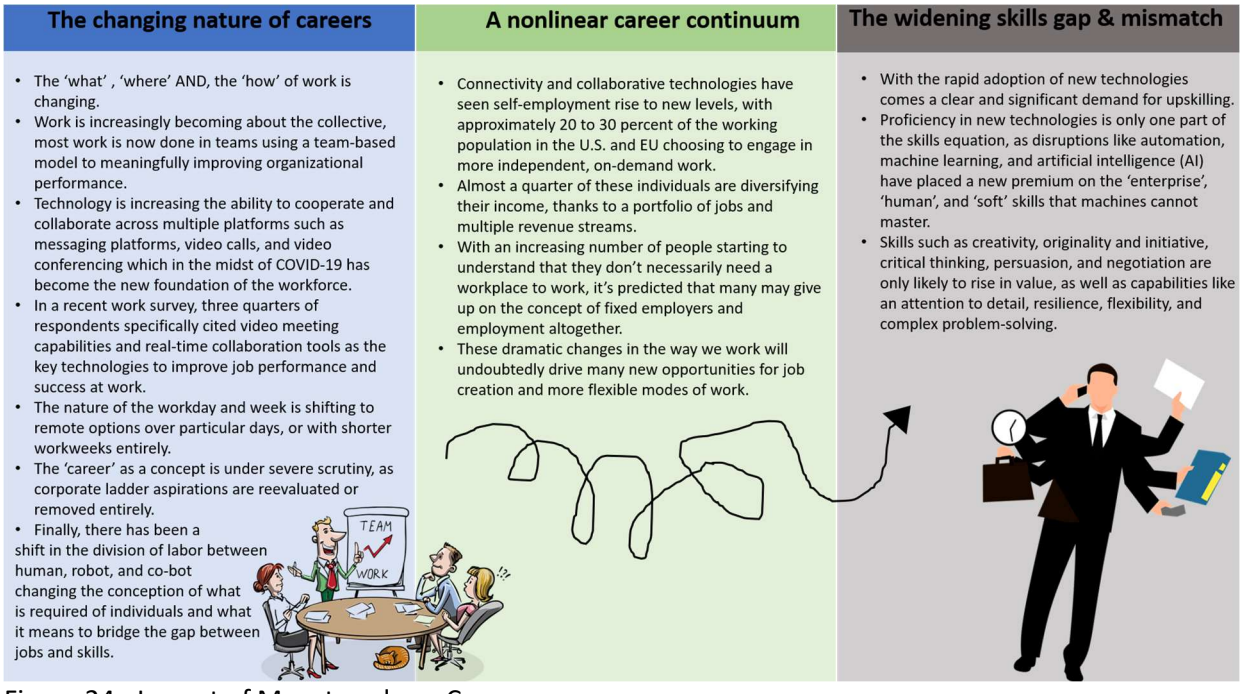

Figure 24 - Impact of Megatrends on Careers

2.2.2 Change Drivers impacting on demand and supply in the mer sector

The merSETA has completed COVID-19 research to inform skills planning with the aim to assess the skills requirements to assist the return to pre-COVID levels. The key skills change drivers in industry unpacked in this chapter are drawn from the economic complexity research in the mer sector, metal chamber research comprising 4IR skills and key skills planning inputs, the atlas of

occupations identifying the key occupations within the mer sectors and green skills research. In addition, the master plans developed in support of economic reconstruction and recovery have been reviewed as well as government reports and strategies.

The sections below address key skills drivers for the sectors, unique drivers by sub-sector highlighted. The section then concludes with the cross-cutting drivers and recommendations to inform skills planning.

2.2.3 Key skills change drivers in the mer Sector by Chamber

Skills change drivers implies those forces within the sectors'economy that would tend to drive change such that the sector must keep pace to be competitive. The purposes of skills planning it is important to focus on the drivers that will also have an impact on the skills needed to support competitive growth. There is a myriad of factors that could impede sector growth such as a weakened currency or import costs however those do not have a direct skills impact on businesses themselves but could indicate that at a national level the governments' drive to support localization is important and that in turn has an impact on business capabilities and skills. The change drivers are not discussed in excessive detail in this section, but they will be unpacked in the concluding chapters of this SSP update.

Table 6: The major drivers that have an impact on the mer sectors are presented below:

Key Skills Drivers	Disruptors due to COVID-19	Metal & Engineering	Auto Assembly	Motor Retail & After Sales Market	Auto Components Manufacturing	New Tyre	Plastics
Business Disruptions impacting on Supply Chains and reduced business operations	Yes	x	x		x		x
Occupational Health & Safety	Yes	x				x	x
Remote working and virtual workplaces	Yes	x	x	x	x	x	x
New materials development (lighter, more durable and stronger)	No	x				x	x
Circular & Green Economy demands (re-use, re-manufacture, recycle)	No	x	x				
Circular & Green Economy demands (green technologies, cleaner production)	No	x	x	x	x	x	x
Circular & Green Economy demands (electric & autonomous vehicles)	Yes		x	x	x		x
Consumer preferences	No	x	x	x		x	x
4IR connectivity (Internet of Things)	No	x	x	x	x		
4IR new product innovations	No		x	x		x	
4IR big data and analytics for business efficiencies	No	x	x				

Key Skills Drivers	Disruptors due to COVID-19	Metal & Engineering	Auto Assembly	Motor Retail & After Sales Market	Auto Components Manufacturing	New Tyre	Plastics
4IR computer aided technologies for production	No	x	x		x	x	x
4IR IT on the shop floor	No		x				
Higher Skills Intensity (multiple skills)	Yes	x		x	x		x
Electric vehicles	No		x	x			

The drivers outlined in the table centres around issues related to skills at both a national and sectoral level.

Skills Implications of 4IR Drivers

The most prevalent driver is the 4IR. Connectivity relates both to the internet of things – connectivity between devices and products as well as IT infrastructure. This has a direct impact on workers and learners in the sectors because of unequal access to the internet across geographic regions which impairs remote learning and working. New product innovations relate to the skills required to continuously keep pace with international trends and innovate in terms of newer better and faster products in keeping with ever changing consumer preferences.

Many production processes across the sectors are aided by robotics and big data analytics to ensure efficiencies and reduce product flaws however these are driven by human intervention and requires ever more sophisticated *technical skills with respect to data analytics, design, and programming*. The auto sector raised the issue of *IT for the shop floor* which is an important consideration for *upskilling workers* to be safe and efficient in their work environment as well as solve problems.

Skills Implications for the Green and Circular Economies

The circular and green economy also came through very strongly in the research. Much like the issues raised in the mega trends there is a preference for cleaner energy and reducing waste across all manufacturing operations. The by-products and products themselves must have a less harmful impact on the environment. A bigger problem facing the global economy is the reduced quantities of fossil fuels so clean energy such as solar and fuel cells become increasingly demanded across the sectors and by discerning consumers, this also includes the move towards electric vehicles. *New solar powered products and efficient fuel cells are a key input into the future of all citizens* – even the transport industry will move to cleaner engines and autonomous vehicles, this will require infrastructure as well as support for localized production of parts and products to support this transition to clean energy.

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 blue print 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.

2.3 Policy Framework Affecting Demand and Supply

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 Covid-19 Impact on the National Development Plan

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.

The SABC News Channel (2021) indicated due to lockdown regulations across South Africa, many people lost their jobs in 2020 as companies reduced staff or closed-down. The Covid-19 pandemic has done significant harm to an already bruised economy. Safely returning to work and actively promoting employment must be a top priority for economic policymakers and stakeholders over the coming few years," notes the NCP report on meeting the 2030 NDP target.

- Responding to the Covid-19 pandemic.
- Actions to restore fiscal and financial sustainability.
- Building the asset base: capital & people.
- Digital readiness for the future.
- Dynamism in employment-creating industries.
- Public Employment.
- Actions to rebuild state capacity.

The former South African Statistician-General Dr. Pali Lehohla indicated in a television interview (2021) that the NDP was never implemented. Lehohla further notes how key targets in developing South Africa have not been met. These include the NDP's goals to increase employment and the level of post-matric education have not been met.

The NDP is the visionary blueprint of government, with business and society as collaborative partners. Seeking to eliminate poverty and sharply reduce inequality by 2030, the five key elements of the NDP are:

- Inclusive social and economic development.
- Sustainable investment and growth.
- Decent jobs and sustainable livelihoods.
- A capable development state; and
- Expanding opportunities.

Fundamentally the MTSF supports the objective of the NDP 2030 to address the triple challenges of unemployment, inequality, and poverty. In addition, the MTSF lays out the package of interventions and programmes that will achieve the outcomes that ensure success in achieving Vision 2030. The MTSF also set out a five-year roadmap which is built on three foundational pillars.

- Driving a strong and inclusive economy
- Building and strengthening the capabilities of South Africans
- Achieving a more capable state

2.3.2 National Skills Development Plan (NSDP)

The purpose of the NSDP is to drive skills development primarily through public education system particularly through TVET and higher education institutions. However, the private sector also plays a critically important role in expanding access and variety in the system. In addition, the merSETA recognizes the pivotal role to encourage students to formulate a career plan from the onset in coordination with the training institution.

Subsequently, there are two seminal strategic documents that underpin the merSETA's mandate for skills planning; namely, The White Paper on Post School Education & Training (2013) and NSDP 2030. Both these documents highlight the SETAs' roles in developing clear, sector-specific linkages between education and the workplace through an analysis of the demand and supply of skills in their sector. In addition, the merSETA considers the skills formation process as it spans the lifetimes of individuals, along the educational and career pipeline. Skills development interventions fulfill developmental imperatives for beneficiaries. Furthermore, strengthening the role of the SETA as an intermediary body will therefore remain pivotal in successful implementation of the NSDP.

The merSETA aligns its strategy to focus its resources on the achievement of NSDP objectives. The merSETA considers the skills formation process as it spans the lifetimes of individuals, along the educational and career pipeline. Therefore, the merSETA has incorporated and aligned the outcomes into its recommended priority actions (elaborated in Chapter 6), thus ensuring continued relevance and responsiveness to key issues and also responding to skills development interventions to fulfil developmental imperatives for beneficiaries.

2.3.3 National Plan on Post School Education and Training (NPPSET)

The NPPSET operationalises the vision and principles of the WPPSET and provides a blueprint for growing an effective and integrated PSET system. Specifically, the NPPSET responds to the following challenges highlighted by the WPPSET:

- Limited PSET provision;
- Skewed and insufficiently diverse PSET provision;
- Weak quality in many parts of the system: high repetition and dropout rates;
- Weak linkages and the workplace: insufficient employer involvement in training;
- Weak and poorly integrated data systems; and
- Weak quality assurances.

These challenges, it notes, must be understood within the context of, and indeed are intensified by, the structural challenges of unemployment, poverty, and inequality. The WPPSET outlines the following policy directions:

- A transformed, non-discriminatory, equal opportunity, youth responsive PSET system;
- An expanded, diverse, differentiated, fit-for-purpose PSET system;
- An articulated PSET system;
- An accessible and successful PSET system; and
- A PSET system that is strongly linked to the world of work.

The role of the NPPSET is to translate these policy directions into concrete actions. It identifies specific goals, objectives, and outcomes for PSET, setting out an implementation plan for 2019– 2030. The overall goal is that, by 2030, the PSET system will be a socially just, responsive, and well-co-ordinated system, providing access to a diversity of quality education and training opportunities, wherein students have a reasonable opportunity to achieve success, and with vastly improved links between education and the world of work.

The merSETA takes into cognizance the vision of the NPPSET and aligns its skills strategy through an indication of a clear focus on the skills pipeline to develop learners in engineering and artisanal fields and to support them in workplace-based learning through learnerships and internships.

2.3.4 PSET Information Policy

This policy replaces the Higher Education and Training Information Policy1 adopted by the Department of Higher Education and Training (the Department) in 2013. It does so to accommodate wide-ranging and significant changes in the Post-School Education and Training (PSET) system that have taken place since 2013, such as the shift in the governance and administration of Technical and Vocational Education and Training (TVET) and Community Education and Training (CET) colleges, from provincial education departments to the Department.

The purpose of this policy is to enable the provision of valid, credible, reliable and high-quality statistics on PSET. It is intended to ensure that all organisation in the PSET system adhere to agreed-upon standards, procedures and guidelines for the generation, collection, collation, integration, processing, coordination, dissemination, and quality assurance of data. The policy is aimed at safeguarding the integrity of data, the protection of personal information and the promotion of the dissemination and use of data through the establishment and maintenance of a uniform and coordinated system for the management of statistics on PSET.

In response to the PSET Information Policy, the merSETA will focus on the participation of employers in the submission of credible workplace skills plans (WSPs) and improving the quality of credible data and the use of data and statistics in research can illuminate what is working well in the system, and why, and what needs to be improved, and how.

2.3.5 Broad-Based Black Economic Empowerment (B-BBEE)

The purpose of Broad-Based Black Economic Empowerment (previously Black Economic Empowerment) is to bridge the gap between formal and substantive equality to ensure that all people in South Africa fully enjoy the right to equality.

B-BBEE is governed by:

- Broad-Based Black Econom
- ic Empowerment Act, 2003 (as amended);
- Codes of Good Practice on Broad-Based Black Economic Empowerment (BEE Codes). The revisions to the 2007 version of the BEE Codes were issued on 11 October 2013 and came into force on 1 May 2015; and
- Sector-specific Codes of Good Practice (Sector Codes). An entity operating in a sector with a Sector Code will be governed by that Sector Code and not the BEE Codes.

Skills Development Act (1998) and Skills Development Levy Act (1999) as they relate to B-BBEE provide a framework for improving the skills and employment prospects of black people.
These Acts also make it compulsory for certain employers to contribute a percentage of their payroll (known as the Skills Development Levy) to a fund that can be used to train staff. The current generic B-BBEE scorecard awards points for skills development, but only for that which is over and above the payment of this levy.
One element of Broad-Based Black Economic Empowerment (B-BBEE) policy is companies' contribution to socio-economic development. This is translated into encouragement for companies to give back to the community through Corporate Social Investment (CSI). Under the BBBEE guidelines 1% of net profit before tax should be spent on social development. BBBEE is enforced through preferential procurement, and compliance is necessary when companies aim to do business with government or large corporations.

The merSETA needs to unpack more on B-BBEE as it relates to the skills development agenda to better inform its stakeholders on how to navigate these pieces of legislation in lie with the outcomes of national and sectoral priorities.

2.4 POLICIES IMPACTING ON SKILLS DEVELOPMENT

2.4.1 Policies impacting on skills development for Post School Education & Training (PSET)

A report by the Productivity SA (2021) articulates that South Africa's socio-economic and industry landscape drastically changed with the advent of democracy in 1994 and introduction of policies and programmes to transform the economy and the labour market. Of significance is the impact brought about by the adoption of the Constitution of 1996; the National Industrial Policy Framework (NIPF) and successive Industrial Policy Action Plan (IPAP) iterations, the National Development Plan in 2014; and promulgation of the Employment Services Act, No. 4 of 2014, which established Productivity SA as a strategic labour market institution with a mandate to promote employment growth and productivity thereby contributing to South Africa's socio-economic development and competitiveness.

In addition, it is worth noting that policies the New Growth Path, the National Development Plan, and the National Industrial Policy Framework and the associated Industrial Policy Action Plan give direction to the mer industries.

Figure 25: merSETA Outcomes

2.4.2 The Green Paper on Electromobility

The Department of Trade, Industry and Competition (DTIC) released a green paper on the advancement of new electric vehicles (EVs) and battery-electric vehicles (BEVs) in South Africa in May 2021.07. This paper outlines a framework on which the long-term outlook of electric vehicles can be developed.

The automotive sector has time and again highlighted that there will be a shift to electric vehicles in the near future. This will be preceded by a phasing out period of internal combustion engines, switching to hybrid vehicles and eventually completely electric vehicles. The framework will focus on the creation of the high value business environment, including an appropriate fiscal and regulatory framework that makes SA a leading and highly competitive location, not only on the African continent but globally, for EV production. In tandem with these plans merSETA stakeholders have also highlighted the need to investigate the opportunities to establish battery manufacturing plants to further facilitate the growth of the economy and create jobs.

2.4.3 National Waste Management Strategy

The National Waste Management Strategy is a legislative requirement of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008). Therefore, the NWMS 2020 is revised and updated based on the success and lessons learnt from the NWMS 2011. In addition, 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 (Department of Environment Forestry & Fisheries, 2020).

Fundamentally the approved National Waste Management Strategy (NWMS) 2020 is implemented to facilitate job creation in the waste sector and increase compliance and awareness of waste. Consequently, the purpose of the NWMS 2020 is broadly focused on preventing waste and diverting waste from landfill by leveraging the concept of circular economy to drive sustainable, inclusive economic growth and development in the waste sector, while reducing the social and environmental impacts of waste (Engineering News, 2020).

The National Waste Management Strategy 2020 charts a new approach to the management of waste in South Africa by introducing the concept circular economy aiming to reduce environmental impacts by re-use and re-cycling of processed materials is at the core towards sustainable development.

The New Growth Path classifies the green economy as one of the jobs drivers and the Industrial Policy Action Plan in turn, encompasses strategic initiatives to develop green industries and to improve energy efficiencies. Furthermore, from a skills development perspective the merSETA needs to integrate education and training programmes for green skills training which are required for

developing an environmentally conscious workforce. As outlined by the NWMS 2020, the growth area is recycling, and skills development will need to cater for such skills requirements. In addition, national strategies such as the Environmental Sector Skills Plan and the Green Economy Accord allude to the need of environmentally conscious skills and the development of green technologies.

2.4.4 Green paper on the social economy

The draft Green Paper proposes the following overall policy position for consideration: While facilitating the growth of the Social Economy, its characteristics of solidarity, social cohesion, social inclusion, self-organisation and self-sustainability should be nurtured. Regulation and financial incentives should be focused, supportive and incisive. In addition, the Social Economy is 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.

The social economy consists of public employment programmes, social enterprises and survivalist activities that take place in the context of local, often informal, economies. The model seeks to support such initiatives by building on community education and social development activities taking place at the community level. The merSETA is currently focusing on the diverse and complex characteristics of local and regional economies which lead to entrepreneurial vitality and innovation to address the central factors in economic development from large and small firms within them with competitiveness.

The range of measures to be considered to stimulate the social economy include measures to enable the Social Economy to benefit from the Fourth Industrial Revolution (4IR) while promoting employment-creation as a response to potential job losses as a result of the introduction of 4IR technologies, needs to be prioritised.

The formal sector is currently unable to provide enough job opportunities to accommodate all the young people entering the labour market, and that there is a spatial mismatch for many young people. It thus seeks to address a demand-side challenge in the context of the youth labour market by providing alternative work opportunities. The primary target group for this model are at risk youth and youth who are marginalised. This includes all young people who are not in employment, education, or training and who are unlikely to be able to successfully access programmes which support transitions into formal sector employment (NPC, 2021).

2.4.5 Economic Reconstruction and Recovery Plan (ERRP)

The post COVID recovery plan outlined by President Cyril Ramaphosa is developed with a purpose to re-shape the economic landscape of South Africa. Therefore, The South African economy experienced two consecutive quarters of negative growth prior to the intensification of the impact of the COVID-19 crisis on the economy. In the context of a post-COVID-19 recovery plan, industrial development is a priority and requires the use of a multiplicity of measures by the state to strengthen its industrial base.

Fundamentally, the reconstruction and recovery plan for the South African economy is aimed at stimulating equitable and inclusive growth. The outbreak of the COVID-19 in March 2020, deepened the economic crisis and challenges of inequality, unemployment, and poverty. Furthermore, President Cyril Ramaphosa is keen to see the economy restored and revived so jobs can be created, and chronic poverty stemmed. In addition, the plan focuses on four interventions:

- Massive infrastructure rollout throughout the country
- Massive increase in local production,
- Employment stimulus to create jobs and support livelihoods,
- Rapid expansion of our energy capacity.

The South African Economic Reconstruction and Recovery Plan has three phases: Engage and Preserve - which includes a comprehensive health response to save lives and curb the spread of the pandemic; Recovery and Reform - which includes interventions to restore the economy while controlling the health risks; and lastly, Reconstruct and Transform - which entails building a sustainable, resilient, and inclusive economy. In terms of the Plan, the following priority interventions will be made:

Specific short, medium, and long-term interventions required to strengthen key sectors of the economy will also be made. The collective impact of these sectoral interventions is intended to bring South Africa back on course towards the targets set in the National Development Plan; Vision 2030. These include:

- Growing the economy at a rate of 5,4%;
- Reducing the unemployment rate to 6%;
- Increasing investment as a share of GDP to 30%;
- Reducing inequality as measured by the Gini Coefficient to 0.60; and
- Total eradication of poverty.

It is acknowledged that the attainment of Vision 2030 and these targets have been made more difficult by the COVID-19 crisis. This presents a challenge which must be met through a redoubling of efforts to put the economy back on track after the blow dealt to it by the crisis, and to place it back on the track towards the trajectory of Vision 2030. A report on the Daily Maverick (2021) cited that the government needs to refocus its attention towards specific sectors that are labour intensive such as manufacturing and agriculture to mention a few. The plan should also be supported by relevant education and skills programmes aligned to these sectors.

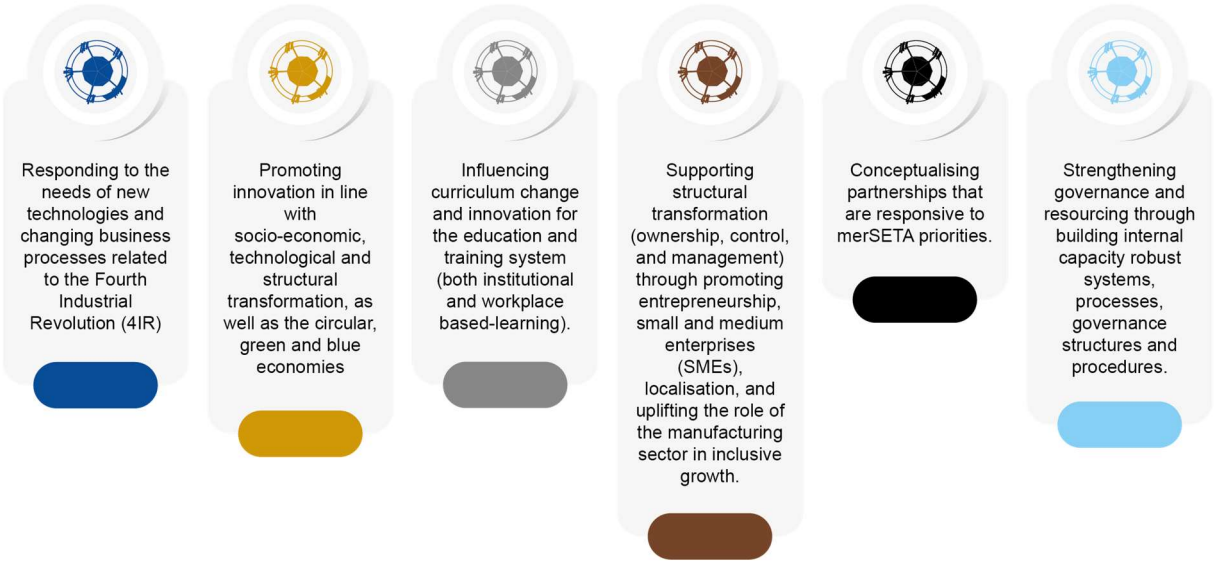

Figure 33 MerSETA's Strategic Focus Areas

The above figure highlights the strategic focus of the merSETA operations in responding to the economic challenges.

2.4.6 National Strategic Plan on Gender Based Violence & Femicide

President Cyril Ramaphosa is reported to have allocated a budget specifically to deal with the issue, and initiated a national strategic plan aimed at eradicating GBV in the next five years. The United Nations Population Fund (2020) believes that violence against women and girls is perpetuated and maintained by the persistence of harmful gender norms, alcohol and drug abuse, and overall increased

poverty. However, the Covid-19 pandemic and associated lockdown measures add an extra layer, placing victims of GBV in perpetual proximity to abusers and away from access to justice (Daily Maverick, 2021).

Gender-based violence and femicide is an ill that has left no sector of society untouched and the structural roots of women's lack of freedom and exploitation as well as obstacles to gender equality are rooted in economic, political, and social systems and predate recent global economic crises. Furthermore, drawing on the Constitution the NDP reinforces this and indicates that South Africa needs to build a more equitable society where opportunity is not defined by race, gender, class, or religion. The evidence of the social and economic deprivations that especially women experience every day in South Africa is overwhelming.

A report by the National Planning Commission (2021) cited the top five priorities in respect of progress for women and girls over the period 2014-2019 as the following:

- Job creation and sustainable growth
- Access to education especially in the STEM (science, technology, engineering, and mathematics)
- Particular maternal mortality and high levels of HIV/AIDS in young woman
- Gender Based Violence
- Economic empowerment of women's health and women with a focus on non-employee forms of employment.

It is worth noting that the NDP Vision 2030 included aspects that would promote the transformation of the socio-economic lives of women. Since the launch of the National Development Plan in 2012 some progress in women's political participation is noted however the conditions that shape and influence women's emancipation and their human development continue to intersect with social, economic, political, and cultural factors in multiple ways (National Planning Commission, 2021). and because of the persistence of patriarchy and the new forms that it takes in contemporary contexts obstacles to women's development remain (National Planning Commission, 2021).

In the current year (221) the merSETA has put in place a large project to assist the sector in terms of GBV by first embarking on a research project to assess the incidence of GBV in the sectors, available resources to victims as well as awareness and training interventions. This will be followed up with a plan to address the challenges resented by GBV in the sectors and assist the sectors by implementing support services and ensure that there is adequate information and awareness raised in respect of GBV.

2.4.7 National Youth Policy

Honourable Minister Maite Nkoana-Mashabane in the Presidency for women (2020), youth and people living with disabilities indicated that the draft National Youth Policy is not a government policy, but it is the state's commitment to youth development. This youth policy for 2020-2030 builds on South Africa's first and second NYPs, which covered the period 2009–2014 and 2015-2020, respectively. In addition, the policy will respond to inequality and will be premised on programmes being inclusive, geared towards rectifying imbalances of the past, and closing gaps in representation and participation.

young people reaffirmed the need to continue a path towards holistic and positive youth development. In this regard, it has been proposed that the youth policy should prioritise the following policy 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.

Technological advancements are rapidly evolving. Therefore, it is worthy to note that, the Fourth Industrial Revolution (4IR) has been identified as the cross-cutting theme across the above stated 5 policy pillars. The NDP anchors for a vision of a prosperous democratic, non-sexist, non-racist equal society and the NYP builds on the NDP vision that the youth have the capacity to reduce poverty and inequality over the next decade.

The South African President Cyril Ramaphosa highlighted while delivering his fifth State of the Nation Address that the intervention of an employment stimulus to create jobs and support livelihoods through a relationship between the private and public sectors was one of four of his government's priority interventions. The Presidential Employment Stimulus is one of the most significant expansions of public and social employment in South Africa's history. By the end of January 2021, over 430 000 opportunities have already been supported through the stimulus. A further 180 000 opportunities are currently in the recruitment process. These opportunities are in areas like education, arts and culture, global business services, early childhood development, and small-scale and subsistence farming (IOL News, 2021).

The merSETA current contribution to this policy includes the following:

- Partnership with the Nelson Mandela University to support student cooperatives.
- Partnership with employers for youth development initiatives in a co-funded model
- Funding of learnerships

2.5 Responding to Economic Reconstruction and Recovery

Since the onset of the COVID-19 pandemic the merSETA has responded with expedience to assist the sector. Key lessons have been learned in terms of the types of interventions required and effectively putting in place parnerships and projects for immediate and medium term impact.

MerSETA is working towards solutions/assistance through skills development in the 4 areas highlighted by the minister:

i. COVID-19 – VIROVENT project has assisted in exploring the possibilities of new capabilities (strengthening the components sector to support the medical components manufacturing due to similar capabilities as those of the auto components sector.

ii. The deepening economic crisis – a key concern is to ensure that skills development is not stalled and that it is positioned towards areas of economic recovery – key to these will be localisation, supporting the social economy, supporting small businesses and cooperatives by providing skills development opportunities, supporting projects to form cooperatives and small enterprises, supporting the skills needs of black industrialists, supporting youth, women and vulnerable groups by providing the right skills so that they can take up opportunities aligned to the ERRP.

iii. Socio-economic sustainability of families – as per the above but in addition the merSETA should endeavour to support the CET sector to provide skills within communities, this is aligned to the social economy in which entrepreneurship, cooperative development and innovations in terms of identifying opportunities to utilise workshops in TVET colleges as workplaces for start-ups.

iv. Climate Change – there is a recognition that the green and circular economies offer many opportunities to reduce pollution, and present new business opportunities. merSETA is working

towards innovations around environmentally friendly technologies like solar energy and preserving/maintaining infrastructure to protect natural resources. Greening of production processes is key as well as recognising opportunities for new innovations, businesses and community development.

To this end the merSETA adapted its discretionary funding priorities to respond to the pandemic as described below. Overall these were already aligned to the Skills Strategy, stakeholders should be capacitated on specific interventions across the 10 DHET interventions to support development of skills through employer partnerships, special projects and strategic partnerships inclusive of research, these include:

- Programme to support retrenched workers,
- Programmes to provide skills for business continuity;
- Programmes to support skills for new enterprises including research and digital learning
- Programmes targeting rural and township economy, SMEs, black industrialists, People with Disability, etc.
- Programmes that support Career Development in future manufacturing skills.
- Programmes that support TVETs and CET Colleges infrastructure and equipment support/partnership to deliver occupational programmes.
- Programmes that support capacity building of TVETs and CET Colleges staff to offer and coordinate occupational programmes.
-

2.6 Conclusion

The manufacturing, engineering and related services sector continues to experience shifts due to global and domestic economic developments, technology advances and innovation. The SETAs in partnership with other role players have a significant role to play in responding to some of these shifts through relevant skills development interventions. The World Economic Forum future of jobs of Tomorrow: Mapping Opportunity in the New Economy report (2020) identified the seven key professional clusters with emerging prospects across in the future these include Data and AI; Care Economy; Green Economy; Engineering and Cloud Computing; People and Culture; Product Development; as well as Sales, Marketing and Content. Collectively, these professions are set to yield 6.1 million new job opportunities in the coming three years. These findings are consistent with findings from this chapter as discussed above. Developments in the digital driven Fourth Industrial Revolution, environmental sustainability, national priorities such as economic transformation and reindustrialisation and disruptions because of the global COVID-19 pandemic will define new priorities in the sector.

CHAPTER 3 OCCUPATIONAL SHORTAGES & SKILLS GAPS

3.1 Introduction

This aim of this chapter is to highlight skills supply and demand issues as well as to identify the occupational shortages and skills gaps in the sector. The data was sourced from multiple datasets and documents such as the merSETA WSP data, merSETA research, desktop research and Statistics South Africa as well as interviews with merSETA stakeholders. DHET reports on statistics

for the post school sector, Ministerial speeches and other department documentation were utilised in this chapter.

3.2 Sectoral Occupational Demand

3.2.1 Hard to Fill Vacancies

The WSP 2021 data provides information on hard to fill vacancies (HTFVs) based on a template provided by the DHET. Of all the WSPs submitted, 4344 companies filled out the skills requirements section pertaining to HTFVs. Most 3955 (91%) companies indicated that they did not have any HTFVs. The table below shows the number of vacancies by occupational group. In total only 389 companies indicated that they have unfilled vacancies. In total they reported 1488 vacancies (less than half the number reported last year). The majority of these were for skilled trades' workers, sales workers, machine operators and managers. This shows that there were more opportunities for artisans and sales workers with relatively little demand for clerical workers and elementary 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 rather than high level skills and qualifications as those required for managers and professionals.

Table 8: HTFV by Occupational Category

level	OFO level	HTFV	%
1	MANAGERS	212	14,64%
2	PROFESSIONALS	143	9,88%
3	TECHNICIANS AND ASSOCIATE PROFESSIONALS	107	7,39%
4	CLERICAL SUPPORT WORKERS	30	2,07%
5	SERVICE AND SALES WORKERS	290	20,03%
6	SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	538	37,15%
7	PLANT AND MACHINE OPERATORS AND ASSEMBLERS	90	6,22%
8	ELEMENTARY OCCUPATIONS	38	2,62%
Grand Total		**1448**	**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.

Table 9: HTFV Occupations

OFO level	OFO code	OFO Occu	Sum of HTFV
MANAGERS	2019-121901	Corporate General Manager	36
	2019-121905	Programme or Project Manager	16
	2019-122101	Sales and Marketing Manager	14
	2019-122102	Sales Manager	59
	2019-132101	Manufacturer	16
PROFESSIONALS	2019-214101	Industrial Engineer	15
	2019-214401	Mechanical Engineer	11
	2019-243301	Industrial Products Sales Representative	22

OFO level	OFO code	OFO Occu	Sum of HTFV
TECHNICIANS AND ASSOCIATE PROFESSIONALS	2019-311801	Draughtsperson	15
	2019-312103	Engineering Supervisor	12
SERVICE AND SALES WORKERS	2019-522302	Motorised Vehicle or Caravan Salesperson	216
	2019-522303	Automotive Parts Salesperson	59
SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	2019-642602	Solar Installer	47
	2019-651202	Welder	55
	2019-651302	Boiler Maker	22
	2019-652201	Toolmaker	19
	2019-652301	Metal Machinist	12
	2019-652302	Fitter and Turner	28
	2019-653101	Automotive Motor Mechanic	102
	2019-653303	Mechanical Fitter	22
	2019-653306	Diesel Mechanic	65
	2019-671101	Electrician	40
	2019-671202	Millwright	44
	2019-684904	Panelbeater	13
PLANT AND MACHINE OPERATORS AND ASSEMBLERS	2019-714101	Rubber Production Machine Operator	27
	2019-714208	Plastics Manufacturing Machine Minder	24
ELEMENTARY OCCUPATIONS	2019-832910	Component Fitter	22

3.2.2 Reasons for Hard to Fill Vacancies

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 (52%) or they lack specific skills (30%).

Table 10: Reasons for hard to fill vacancies

Reason	%
Candidates do not have the right experience	52%
Candidates lack specific qualifications	4%
Candidates lack specific skills	30%
Equity considerations makes it difficult to find candidates	4%
Poor remuneration	4%
Vacancy situated in remote/difficult to access location	4%
Grand Total	**100%**

In terms of the specific occupations – the table below demonstrates the prevalent reason for the HTVF.

OFO code	OFO Occu	Candidates do not have the right experience	Candidates lack specific skills
2019-121901	Corporate General Manager	X	
2019-122102	Sales Manager	x	X
2019-132101	Manufacturer		X
2019-243301	Industrial Products Sales Representative		x
2019-312103	Engineering Supervisor	x	
2019-522302	Motorised Vehicle or Caravan Salesperson	x	
2019-522303	Automotive Parts Salesperson	x	
2019-642602	Solar Installer		x
2019-651202	Welder		x
2019-651302	Boiler Maker		x
2019-652201	Toolmaker		x
2019-652301	Metal Machinist	x	
2019-652302	Fitter and Turner	x	x
2019-653101	Automotive Motor Mechanic	x	x
2019-653303	Mechanical Fitter	x	
2019-653306	Diesel Mechanic		x
2019-671101	Electrician	x	
2019-714101	Rubber Production Machine Operator	x	x
2019-714208	Plastics Manufacturing Machine Minder	x	
2019-832910	Component Fitter		x

3.2.3 Skills Gaps in the sector

In terms of the skills gaps, the figure demonstrated that all occupations are impacted by new technology, new processes and new products. Technical – job related skills gaps are prevalent in the semi and low skilled occupations. Problem solving was prevalent for the trades as well as operators.

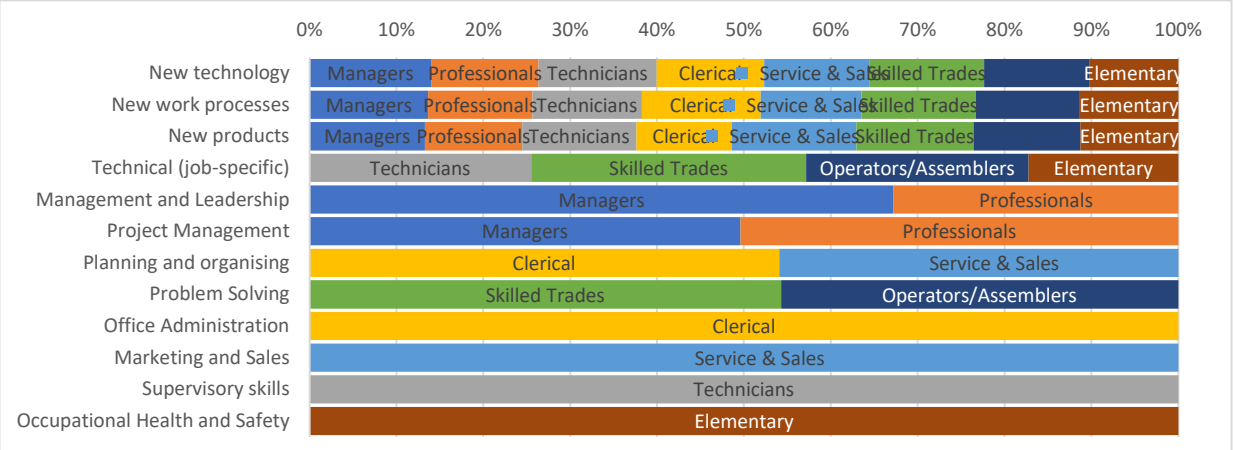

Figure 26: Skills Gaps[4]

3.2.4 Skills for economic reconstruction and recovery.

The merSETA reviewed all the occupations highlighted in the ERRP skills strategy and found that many, if not most of the skills required are supported by the merSETA for either business continuity or highlighted as priority skills, the table below outlines the skills highlighted and those identified as priorities.

Name of Occupation	merSETA list	Name of Occupation	merSETA list	Name of Occupation	merSETA list
Agricultural Farm Manager		Electrical Engineer	priority skill	Manufacturing Technician	priority skill
Agricultural Technician		Electrical Engineering Technician	priority skill	Mechanical Engineer	supported
Apparel and related pattern maker		Electrical Equipment Mechanic		Metal Machinist	priority skill
Architect		Electronic Engineering Technician/Medical Equipment Maintainer	priority skill	Metal Processing Plant Operator	priority skill
Cabinet Maker		Fitter and Turner	priority skill	Outbound Contact Centre Consultant	
Call or Contact Centre Agent		Food and Beverage Manufacturing Process Controller		Product Assembler	supported
Call or Contact Centre Manager		Footwear Cutting Production Machine Operator		Production / Operations Supervisor (Manufacturing)	priority skill
Carpenter		Furniture Finisher		Production Engineering Technologist	priority skill
Civil Engineer	supported	ICT Communications Assistant	priority skill	Programmer Analyst	
Civil Engineering Technologist	priority skill	ICT Project Manager		Purchasing Officer	priority skill
Computer Network and Systems Engineer		ICT Security Specialist		Quality Controller (Manufacturing)	priority skill
Computer Network Technician		ICT Systems Analyst		Quantity Surveyor	
Construction Project Manager		Inbound Contact Centre Consultant		Research and Development Manager	
Contact Centre Forecast Analyst		Industrial Machinery Mechanic		Safety Inspector/Medical Equipment Inspector	priority skill

[4] Skills gaps by occupation is not possible at this stage given that the current data collected cannot accommodate it as it would be cumbersome for employers to highlight gaps for every occupation. Gaps for occupations in high demand will be considered for the next SSP update.

Name of Occupation	merSETA list	Name of Occupation	merSETA list	Name of Occupation	merSETA list
Contact Centre Real Time Advisor		Instrument Mechanician/Medical Equipment Repairer		Software Developer	priority skill
Contact Centre Resource Planner		Integrated Manufacturing Line Process Control Technician	supported	Toolmaker	priority skill
Data Scientist		Leather Processing Machine Operator		Upholsterer	
Developer Programmer		Lift Mechanic	priority skill	Web Developer	
		Manufacturing Operations Manager	supported	Wood Machinist	

Skills or occupations not highlighted tend to be skills that are found within the goods cluster of SETAs so the majority of occupations are related to the overarching manufacturing sector as well as the digital skill sector. Digital skills requires further research to understand the types of digital skills that are required in the manufacturing setting, however our stakeholder have highlighted that there is a growing need for IT on the shopfloor, coding, big data and data analytics.

3.2.5 Priority Skills for the mer sectors

In order to identify the merSETA Priority skills the following were included in the methodology:

- The merSETA has engaged with the sectors to better understand the impact of COVID-19 on enterprises and identified skills for a return to pre-COVID-19 conditions by sector.
- The SETA has examined short and medium term economic scenarios to predict employment and growth within the sectors in a situation of no change and negative change. Further studies are being implemented to assess the sectors well being through a firm survey and future outlook 12 months after the onset of the pandemic.
- Embarked on identifying the skills required for the green economy – sectoral understanding of green, skills interventions required and deliberated on how to monitor the green economy to meet the skills demand.
- The ERRP has highlighted the sectors that will support recovery and growth – the manufacturing sector is central to plan – particularly in the area of localisation and keeping apace of the 4IR. Research is being conducted to identify occupations at risk of being negatively impacted by automation and digitalization
- There is emphasis in the ERRP on the digital economy and the circular economy – partnership with the DSI, DTI and industry will be key to assist with rapid skills development in areas aligned to mer sectors.
- Consolidate the skills per chamber and then rank skills across the chambers.
- The skills identified in the WSP 2021 analysed and contrasted against the already identified skills.
- The final skills list was shared with the chambers for confirmation.

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.

Figure 27: ERRP Skills Priorities

OFO	Occupation	ACM	Auto	Metal	Motor Retail	New Tyre	Plastics
2019-214101	Industrial Engineer	x	x	x	x		x
2019-214401	Mechanical Engineer	x	x	x			x
2019-652301	Metal Machinist	x		x	x		x
2019-132107	Quality Manager	x		x	x		x
2019-653101	Automotive Motor Mechanic	x		x	x	x	
2019-121101	Finance Manager	x		x	x	x	
2019-122102	Sales Manager			x	x	x	x
2019-242303	Human Resource Advisor			x	x	x	x
2019-311904	Manufacturing Technician			x	x	x	x
2019-653303	Mechanical Fitter	x		x	x		x
2019-671202	Millwright	x		x	x		x
2019-718905	Engineering Production Systems Worker	x		x	x		x
2019-652201	Toolmaker	x		x			x
2019-226302	Safety, Health, Environment and Quality (SHE&Q) Practitioner			x	x	x	x
2019-643202	Vehicle Painter	x		x	x		
2019-652302	Fitter and Turner	x		x	x		
2019-671208	Transportation Electrician	x		x	x		
2019-714101	Rubber Production Machine Operator	x			x	x	
2019-121901	Corporate General Manager		x	x	x		
2019-122101	Sales and Marketing Manager	x		x	x		

3.3 Extent and Nature of Supply

3.3.1 The State of 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 manufactruing 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. It assesses the gaps in the supply pipeline in order to help identify where the merSETA can most effectively intervene.

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. 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.

Higher Education &Training

One of the biggest challenges is that previously disadvantaged universities have not developed engineering faculties, implying that the pipeline of graduates is limited to universities that have traditionally produced engineers (ECSA Report, 2019). The Minister of Higher Education, Science & Innovation Blade Nzimande indicated in a media briefing those 20 000 enrollments should be decreased as he points out that more than 50% of higher education is dependent on NSFAS. However, NSFAS is seemingly financially overburdened. In addition, for the 2020 financial year, the National Student Financial Aid Scheme (NSFAS) had received a record number of first-time applications (543,268) by the 30 November 2019 closing date (compared to 428,929 the previous year) from across the country, with most applicants submitting applications online. All applications were processed over the festive season, with 428,377 applications approved for NSFAS funding.

Supply side statistics shows that of those enrolled in HEIs in 2019, 30% were enrolled in science, engineering and technology (SET) fields (DHET, 2020)5. Most learners enrolled in HEI were Black African (over 75%) however the proportion of Black students tends to decrease in enrolments. It is heartening to report that almost 30% of all graduations in 2019 were in the SET field followed by business management (26%), Humanities (23%) and education (21%).

Many systemic challenges are hampering engineering education: ageing or immature infrastructure, lack of private-sector investment in research, equity in access to engineering, and so on. Furthermore, Engineers will need to have the skills to not only harness but contribute to the development of AI and to ensure that it is used ethically and responsibly. to benefit socio-economic development. Subsequently, there is a need, therefore, for the government to understand that funding for education and science should be seen as a social investment rather than as an expenditure.

TVET Colleges

TVET stands for 'Technical and Vocational Education and Training'. Which is an international educational term that is applied to certain post-school educational institutes. UNESCO (2012: cited in Odendaal (2015) explains that technical and vocational education is used as a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. In addition, TVET colleges play a pivotal role in addressing South Africa's skills needs and cater for a wide spectrum and growing numbers of students.

Fundamentally, TVET colleges are part of the education system that combine education, training and skills development. In addition, TVET colleges further provide technical and vocational education and training programmes to learners who have completed at least grade 9 at school level. In addition, The Minister of Higher Education, Science & Innovation Blade Nzimande indicated that the entity recorded more than 750,000 applications for the 2021 academic year, an increase of 185,000 from last year. Notably, most graduates from TVET Colleges have business-related qualifications/part qualifications,

5 STATISTICS ON POST-SCHOOL EDUCATION AND TRAINING, 2019 (DHET)

apart from N3 student who are all engineering graduates. Only around 20% of N6 and 19% of NCV graduates have graduated from engineering programmes (NPC, 2020).

TVET Centres of Specialisation

A Centre of Specialisation is a department within a public TVET college campus dedicated to training and address the demand of priority trades needed for the governments National Development Plan (College of Cape Town, 2019). The Centres of Specialisation (CoS) is a national programme aimed at building the capacity of the public TVET college system to deliver trade qualifications while building the much-needed skills for Strategic Integrated Projects (SIPs) of government's infrastructure programme (DHET Report, 2020).

The National Skills Fund, supported by the Sector Education and Training Authorities and other donors are funding the development of the CoS. The new occupational qualifications comprise three components: theory, practical/ stimulated training work experience (SSACI, 2019).

College sites are providing training in order to develop artisans with industry partners in 13 priority trades comprising skills sets in brick laying, electrician, millwright, boilermaker and automotive mechanics to name a few (DHET Report, 2020). Therefore, a pilot programme has been implemented to expose students to workplace practices during training so that they become work ready once qualified (SA News, 2020). Subsequently the following are key highlights of the TVET Centre of Specialisation:

- 484 young people have been recruited to start their first year in 2021 as apprentices.
- 770 apprentices at 26 CoS are enrolled for their third year on 13 priority trades with 130 participating employes;
- 94% of the 150 million budgets allocated by NSF has been spent in building and refurbishing infrastructure at the 26 CoS workshops to meet industry standards for training A21 apprenticeships (apprentices of the 21st century) in the target trades.
- 58 facilitators with industry experience have been recruited for the CoS programme;
- The sector education and training authorities (SETA's) have made commitments to funding TVET colleges to recruit more apprentices as part of the skills strategy to support the Economic Recovery and Reconstruction Plan.
- TVET colleges are being supported to be trade test centres for occupational trades.
- ained-49 facilitators/ TVET college lecturers.

The Department of Higher Education, Science & Innovation is in the process of implementing the skills strategy in response to the ERRP with TVET programmes well placed to play an important role in the post Covid-19 economy. vocational, occupational and skills training programmes that provide students with scarce and critical skills and practical experience in fields that present good prospects of employment (College Times, 2021).

Learnerships & Apprenticeships

A combination of sources, such as data from the Annual Report as well as QMR, shows that a fair estimation of completion rates for learnerships is between 40-70% and between 40- 50% for apprentices. Apprenticeships do take longer to complete than learnerships, typically 3 to 4 years, and would naturally have a higher dropout rate. This section provides a full profile of those enrolled to complete an apprenticeship and learnerships during 2014/15 to 2019/20.

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. The skills of an apprentice comprise of a collection of skills that make up an occupation (NADSC, 2020). In comparison to apprenticeship, learnerships are work-based learning programmes with a threefold purpose to provide learning in a structured and systematic form than apprenticeships, linking the structured learning to multiple sites of the work experience, and training with practical work experience that culminates into a nationally recognised qualification. As the leaders in closing skills gap the merSETA in the period of 2014/15-2019/20 has successfully certified 19208 learners into Artisan status and further successfully certified 20755 learners in NQF level 1-4 learnership programmes (QMR, 2020).

The most five (5) dominant trades certified include welder, electrician, fitter and turner, diesel mechanic and motor mechanic. Conversely, for learnerships the most five (5) dominant programmes include mechanical engineering technician, Product assembler, production technology, millwright and machinery assembler. To successfully achieve learners on apprenticeship and learnership programmes, the merSETA contracts different institutions such as employers/companies, TVET colleges, public government departments etc. that have the capability to train on the priority trades.

The merSETA arguably remains one of the leading SETAs in its contribution to the realisation of NSDP 2030 goals. During the 2019/20 financial year, the merSETA supported almost 10 000 unemployed learners through various learning interventions. The merSETA provided support to almost 7000 employed learners to promote skills development in the workplace, enhancing their skills, enabling better productivity and addressing scarce skills within the mer-Sector through learning interventions such as learnerships. The annual registration and completion figures for apprentices and learnerships since the 2014 financial year are shown in Figure 19 and Figure 20 below. 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.

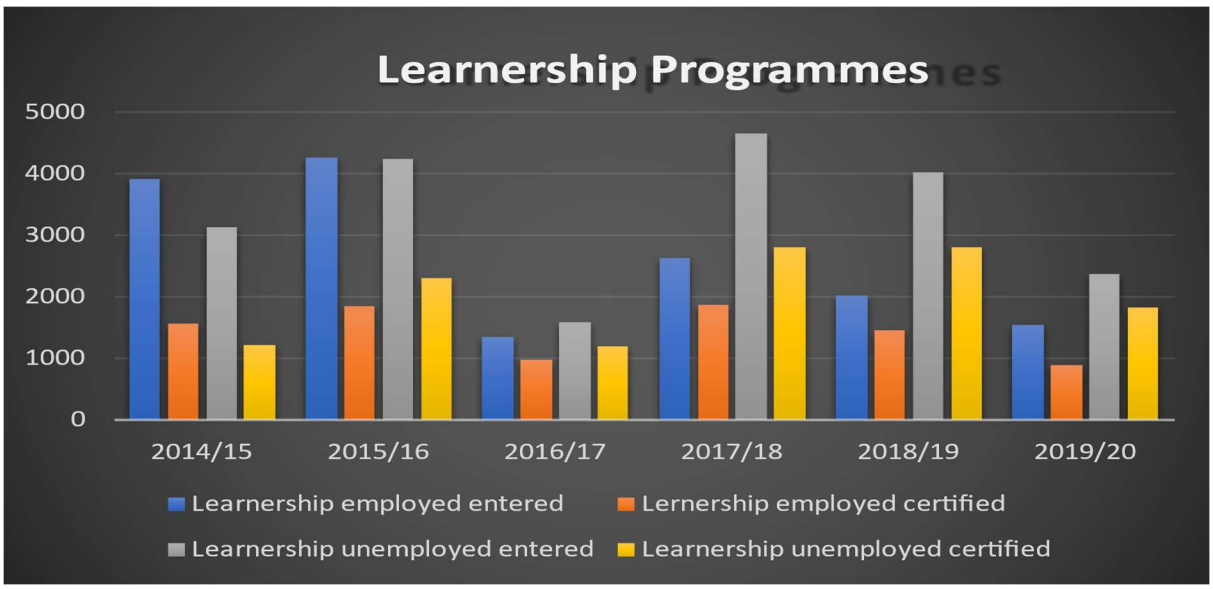

Figure 28: Learnerships Entered and Completed

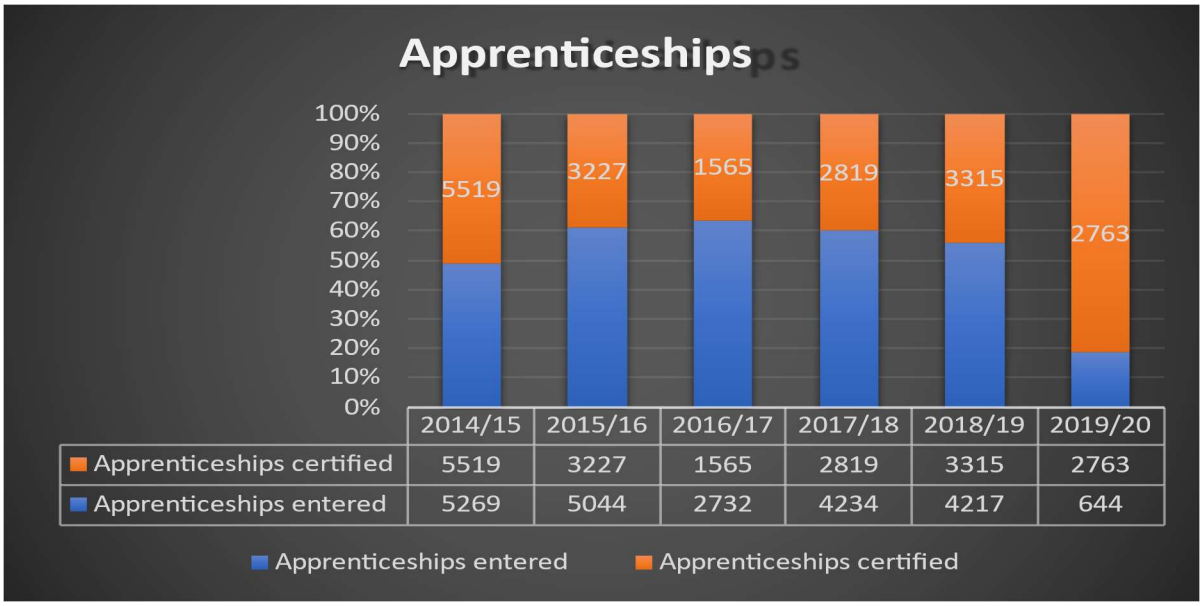

Figure 29: Apprenticeships Entered and Completed

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 (LMIP Dictionary on Skills Supply, 2017). To elaborate further provision is undertaken by a training provider accredited by an ETQA (Skills Development Act No. 97 of 1998). A skills programme may specify the sequence in which the unit standards must be achieved and the practical workplace experience that forms part of the programme. The Department of Higher Education and Training developed strategies to address skills and artisan shortages in the country (DHET, 2019a).

According to the Labour Market Intelligence Report (2020) skills planning in South Africa is a complex process that directly influences many of the country's developmental objectives. In the face of pressing socio-economic challenges, optimal skills planning should co-ordinate several distinct priorities, including promoting economic growth and facilitating transformation, as well as reducing unemployment, poverty, and inequality.

The Minister of Higher Education, Science & Innovation (2021) indicated that educational supply mismatch refers to the types of skilled graduates needed by the labour market against what is produced by the institutions of learning. There is a mismatch in that there is a need for larger numbers of Science, Technology, Engineering and Mathematics (STEM) graduates and artisans in new and more diverse fields, especially in respect of the Fourth Industrial Revolution (4IR) challenges. The NDP has calculated that as a country we need to produce 30 000 artisans per year by 2030. In our own Economic Reconstruction and Recovery Skills Strategy we have realised the need of these skills urgently.

During the 2019/20 financial year, the merSETA implemented several training programmes aimed at enhancing the skills of its staff and management in delivering services. The contract management training and Bid Committee training conducted by the National School of Government, for example, were key training interventions implemented to strengthen financial management in the organisation to ensure that 'all revenue, expenditure, assets and liabilities of those governments are managed efficiently and effectively; to provide for the responsibilities of persons entrusted with financial management as stipulated' in the PFMA Act.

Skills programmes continue to form an important part of training and development, they offer short and focused skills interventions. The figure below shows workers and unemployed works entered and

certificated between 2014/15- and 2019/20. It seems that more workers are enrolling and becoming certificated in the latter years demonstrating higher demand and higher success rates.

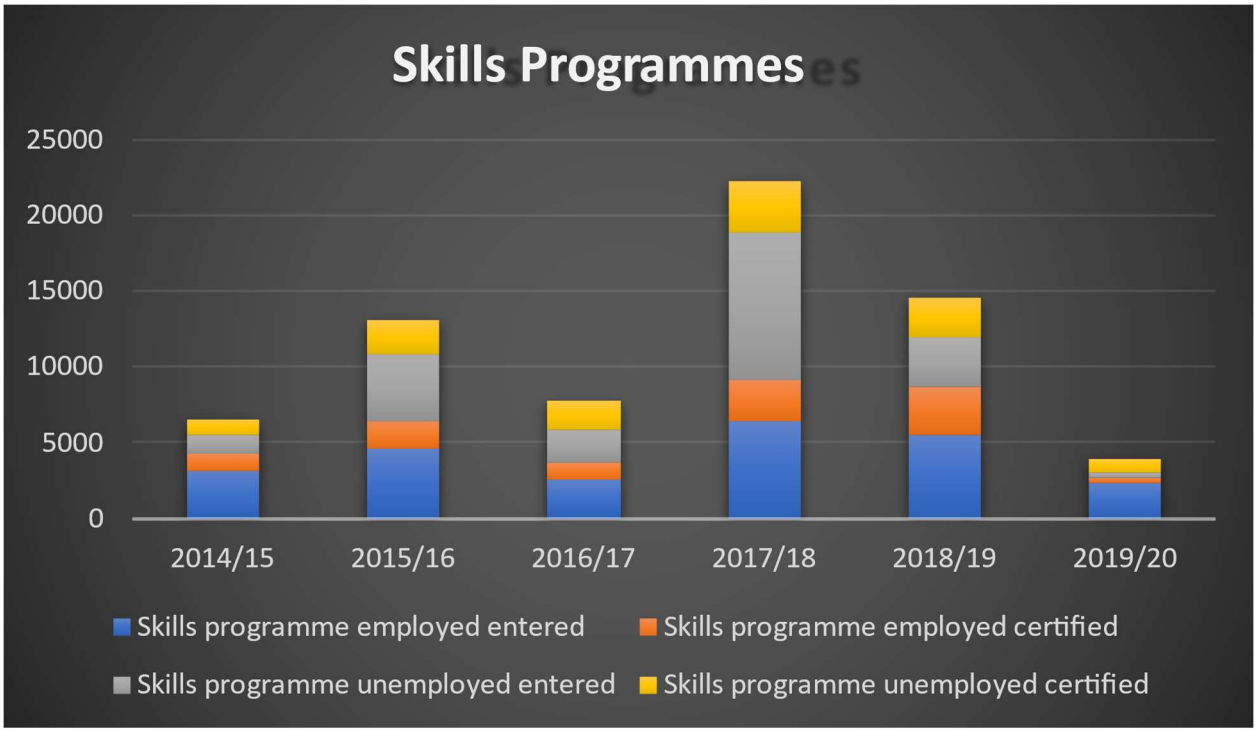

Figure 30: Skills Programmes Entered and Completed

CHAPTER 4 PARTNERSHIPS

4.1 Introduction

Partnerships are the vehicle through which the merSETA is able to fulfil its skills development mandate. Partnerships are funded through discretionary grants and are therefore subject to the conditions of the discretionary grants and projects policy of the merSETA. 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.

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).

This chapter aims to analyse the types of partnerships that the merSETA has embarked on, while highlighting best practice learnings in terms of partnership successes and challenges. The merSETA has put in place a best practice model as demonstrated below to guide partnerships. The chapter concludes with the discussion of potential future partnerships in line with national imperatives and sectoral needs, in a time of the COVID-19 pandemic and looking toward the implementation of the ERRP.

4.2 Approach to partnerships

Since its inception, the merSETA has done well in terms of fulfilling its mandate with partnerships being the key to successfully meeting skills development targets. Research, development and innovation projects have benefited from the working relationships established through partnerships.

Collaboration, communication, continuous monitoring and flexibility are highlighted as key components for successful partnerships. Unsuccessful partnerships can result in low throughput rates, wasted funds, poor quality outputs and a lack of trust between partners and a sector that does not hold the work of the SETA in high regard.

The current social and economic context driven by a pandemic and a devastating economic climate, the merSETA has realised that it is important to be proactive and agile in order to respond to the immediate needs of its stakeholders. To this end the merSETA has realised the following:

- Lead times for putting in place effective partnerships in times of crisis or urgent need. This requires agility and capacity to ensure quick turnaround times for required interventions.
- It is important to put in place partnerships that extend beyond mere exchange for mutual benefit but rather to support economic imperatives of job creation, job preservation, economic empowerment, and skills development within a supportive and networked arrangement for sustainability and reach (able to reach those in need).
- Utilising research findings more readily to inform required partnerships for business innovations, entrepreneurship, and utilising tools such as smart phone utilisation among the youth to ensure implementation of training interventions and other skills and enterprise development opportunities.
- Technological tools available to the majority of the population such as smart phones presents key opportunities to partner with cell providers and training institutions – particularly in the micro-credentialling space – something that the merSETA has started to embark upon through its ICT4App project.

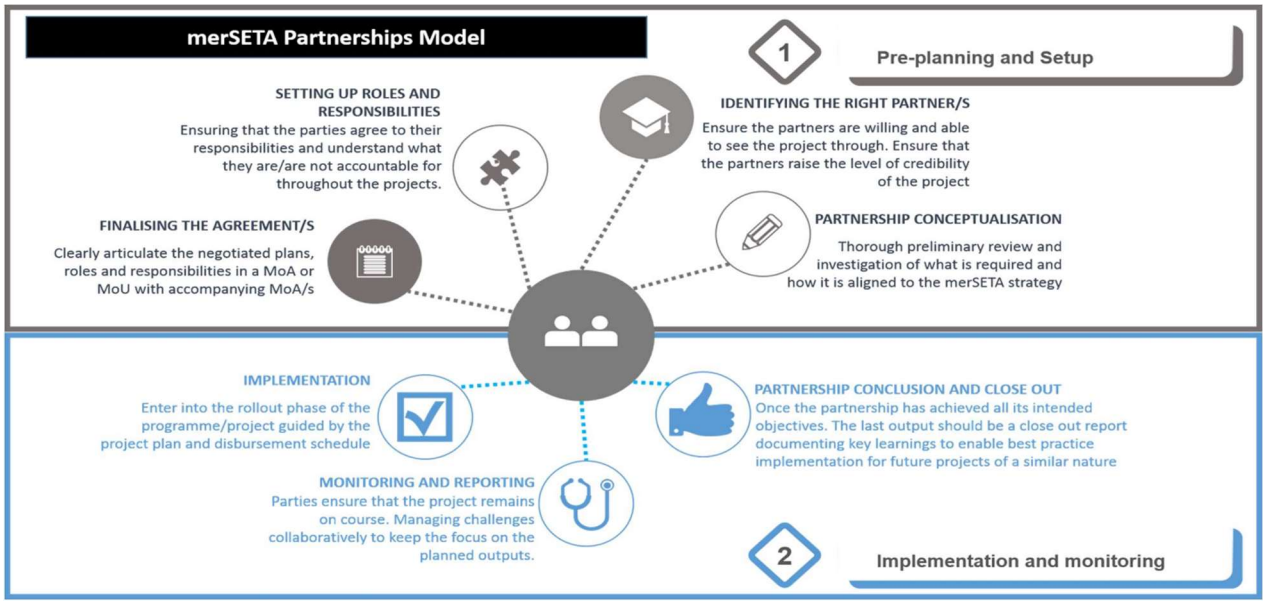

Figure 31: **Partnership Model**

4.3 Analysis of Existing Partnerships

The partnerships presented in this section arises from a summary of current partnerships in the merSETA system as 31 March 2021. These contractual arrangements and their implementation are monitored at a 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 type and partner can be seen in the table below.

Table 11 - Types of Partners and Purpose of partnership

Purpose	Type of Partner							Total
	Employer Body	Government Department	Higher Education Institution	International Exchange	Research	TVET	Other PSET	
Bursaries			2				2	4
Candidacy			1					1
Career Awareness			2					2
Chair in Engineering			1					1
Lecturer Development			2					2
Mentor development						4		5
Not specified		1					14	16
Qualification/curriculum development						1	4	5
Research			2		10			17
Skills Interventions	1	16	13			13		46
WBL			10	2		5		17
Grand Total	**1**	**19**	**33**	**2**	**10**	**33**	**22**	**112**

*** other PSET partnerships refer to partnerships which include CBO, NPO and private partnerships.*

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

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

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

Partnership are 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 publicly funded institutions.

4.4 Partnerships: Partners, duration, objectives, and values

4.3.1 TVET College Partnerships

TVET Colleges are critical for the development of skills to strengthen the economy. They accommodate a large number of 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 merSETA have partnered with TVET colleges in an attempt to turn them into institutions of choice for school leavers. Partnerships with TVET colleges are aimed at:

- Promoting the quality and responsiveness of TVET teaching, learning and assessments.
- Facilitate access to learning opportunities so that TVET graduates can either gain artisan status or become employable, this includes Recognition of Prior Learning (RPL).
- Develop skills required to meet the demands of new and sophisticated technologies.

The table below lists all merSETAs' TVET College Partners and objective of the partnership:

Table 12 - TVET COLLEGES PARTNERED WITH MERSETA

TVET	Objective	Start Date	End Date	Value of the partnership
Vuselela TVET College	TVET 4.0 Technical Mentor Development	25 September 2019	31 December 2022	Developing mentors for learners
Boland College	College Infrastructure development and upgrades	10 March 2021	31 March 2023	Improved access to quality teaching and learning
College of Cape Town	Upgrade of Welding Facilities, Motor Racing Event for 105 Learners, Lecturer Development	28 February 2019	31 October 2021	
Eastcape Midlands TVET College	Industry 4.0 Workshop Set-Up	31 October 2018	31 March 2021	
Ehlanzeni College	Lecturer Development & NQF 4 Learnership (Heavy Equipment Mechanic)	25 March 2021	31 March 2024	
Ekurhuleni East TVET College	College Infrastructure development and upgrades	30 March 2021	31 March 2024	
False Bay TVET College	Upgrade of Training Facilities	22 November 2018	31 March 2021	
	Venture Accelerated Programme	23 March 2021	31 March 2023	
Vhembe College	College Infrastructure development and upgrades	23 March 2021	31 March 2024	

TVET	Objective	Start Date	End Date	Value of the partnership
Eastcape Midlands TVET College	TVET 4.0 Technical Mentor Development	19 November 2019	31 December 2022	Mentor development
Ekurhuleni West TVET College	TVET 4.0 Technical Mentor Development	25 October 2019	31 December 2022	
False Bay TVET College	TVET 4.0 Technical Mentor Development	28 October 2019	31 December 2022	
Flavius Mareka College	Skills Development of Offenders	26 April 2017	31 October 2021	Provide access to skills development opportunities for marginalised groups
Boland College	Learnerships L2-4	21 October 2020	30 September 2024	Provide access to skills development opportunities in line with national and sectoral priorities
Coastal College	Learnerships L2-4, Skills Programmes, Graduate Dev and Internship	17 February 2021	30 September 2024	
College of Cape Town	Apprenticeship, ARPL, Skills Programmes	15 December 2020	30 September 2024	
Eastcape Midlands TVET College	The 4th Industrial Revolution	31 October 2018	31 March 2021	
Ekurhuleni East College	Apprenticeships	20 November 2020	30 September 2024	
Elangeni College	Skills Programmes	23 March 2021	30 September 2023	
Ingwe College	Apprenticeships	19 October 2020	30 September 2024	
King Hintsa College	Apprenticeships and TVET Placements	20 November 2020	30 September 2024	
Motheo College	Spray painting Simulator Training	24 March 2017	31 October 2021	
Nkangala College	Apprenticeships	10 December 2020	30 September 2024	
Northern Cape Urban College	Spray painting Simulator Training	30 March 2017	31 October 2021	
Northlink College	Spray painting Simulator Training	14 March 2017	31 October 2021	
Sedibeng College	Spray painting Simulator Training	13 March 2017	31 October 2021	
Umfolozi College	Apprenticeships	02 March 2021	30 September 2024	
Umgungundlovu College	120 Learners on Skills Programmes	25 May 2018	30 September 2021	
	120 learners enrolled over a three year period for merSETA skills programmes.	24 May 2018	30 September 2021	
Vhembe College	Apprenticeships	08 December 2020	30 September 2024	

TVET	Objective	Start Date	End Date	Value of the partnership
West Coast College	Apprenticeships	02 December 2020	30 September 2024	
Ikhala College	Workplace Exposure for N Diploma Electrical	16 November 2020	30 September 2024	
West Coast College	The implementation of the new occupational qualification registered by the QCTO as the "Solar Photovoltaic"	27 March 2019	31 March 2022	Qualification/curriculum development

4.3.2 Higher Education Institution (HEI) Partnerships

As per the NSDP, SETAs have a pivotal role to play in bringing the education fraternity and industry closer together. 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. Table 15 below, provides an overview of the HEI partnerships.

Table 13 - HEI Partners and Scope of Work

HEI	Objective	Start Date	End Date	Value of the partnership
Cape Peninsula University Of Technology (CPUT)	Workplace experience for students P1&P2	19 March 2019	30 September 2023	Providing workplace learning and experience for better labour market outcomes
	Skills demand: 4IR	27 July 2018	31 March 2021	Development in line with the 4IR for the small business sector
Central University Of Technology	Workplace Experience and Graduate Development	20 May 2019	30 September 2023	Providing workplace learning and experience for better labour market outcomes
	Ikusasa Student Financial Aid Programme (ISFAP)	21 December 2018	31 March 2021	Providing bursaries to improve learner access to skills interventions
Durban University Of Technology	Workplace experience for students P1&P2	27 March 2019	30 September 2023	Providing workplace learning and experience for better labour market outcomes
	Workplace experience for students P1&P2	29 March 2019	30 September 2021	
Mangosutho Univ Of Technology	Workplace experience for students P1orP2-100	12 March 2021	30 September 2023	
Nelson Mandela University	TVET-Marine programmes	31 March 2015	31 March 2021	Provide access to skills development opportunities in line with national and sectoral priorities
	Development of TVET Lecturers and trainers	01 February 2019	31 March 2022	Lecturer Development
	Industry 4.0	28 March 2019	31 March 2021	Development in line with the 4IR
	Various Programmes	31 March 2020	31 March 2023	Provide access to skills development opportunities in line with national and sectoral priorities

HEI	Objective	Start Date	End Date	Value of the partnership
North-West University (NWU)	Funding of various innovation, researh, and support programmes	31 March 2020	31 March 2023	Research
Rhodes University	Various Programmes	22 March 2019	30 September 2021	Provide access to skills development opportunities in line with national and sectoral priorities
Tshwane University Of Technology	Workplace experience for students completing P1 or P2	28 March 2019	30 September 2023	Providing workplace learning and experience for better labour market outcomes
	Various Programmes	22 March 2019	31 March 2022	Provide access to skills development opportunities in line with national and sectoral priorities
	Skills Development in Domestic Appliances for 600 TVET college students	22 June 2020	31 March 2024	
University of Cape Town (UCT)	Bursaries	08 September 2020	30 September 2021	
University of South Africa	Merseta Career Development framework	28 May 2018	31 March 2021	Career Awareness
University of The Free State	Funding University of the FS in various programmes tp develop skills needed for Industry 4.0	30 November 2018	31 March 2022	Provide access to skills development opportunities in line with national and sectoral priorities
	Establishment of 4IR Centre for Data and Digital Engineering and Research capacity in Computer Science and Technology	20 May 2020	31 March 2024	Development in line with the 4IR
University of the Western Cape	Development of a PG Dip for lecturers	16 November 2016	31 March 2023	Lecturer Development
	The establishment of an Interactive Digital Centre HUB inclusive of a virtual 3-D learning platform	28 September 2018	31 March 2022	Provide access to skills development opportunities in line with national and sectoral priorities
University of Venda	Funding of various innovation, research and support programmes	31 March 2017	31 March 2022	
Vaal University of Technology	Candidacy (Graduate Development)	30 March 2019	30 September 2023	Candidacy
Walter Sisulu University	Research and Career Development	24 July 2020	31 December 2023	Career Awareness

4.3.3 National and Provincial Government Partnerships

The merSETA partners with government departments for skill development purposes to develop artisans and up-skill the youth and marginalised individuals such as prisoners.

Table 14 - GOVERNMENT PARTNERS AND SCOPE OF WORK

GOV Dept	Objective	Start Date	End Date	Value of the partnership
Department of Correctional Services	Funding of parole awaiting offenders on Skills programmes	31 March 2017	31 March 2021	Provide access to skills development opportunities for marginalised groups
Department of Correctional Services	Skills development of offenders in different facilities	29 March 2017	31 March 2021	

GOV Dept	Objective	Start Date	End Date	Value of the partnership
Eastern Cape Office of The Premier	Apprentices and P1/P2		30 September 2024	Providing workplace learning and experience for better labour market outcomes
	Skills Interventions	30 March 2016	31 March 2021	Provide access to skills development opportunities in line with national and sectoral priorities
Free State Department of Education	Training of Engineering Graphic and Design	29 March 2019	30 September 2021	
Free State Office of The Premier	Apprentices,Internship,Skills Programs	29 March 2016	31 March 2021	
	Funding of Skills Programs, Artisans and candidacy skills development interventions.	14 March 2017	31 March 2021	
Gauteng Department of Education	Skills programmes & Graduate Interns	31 May 2018	31 March 2021	
KZN Economic Development, Tourism And Environmental Affairs	Artisan Recognition of Prior Learning (ARPL)-450	13 December 2019	30 September 2024	
KZN Office Of The Premier	Skills & Apprenticeships	20 March 2019	31 March 2024	
	Artisan training	16 June 2012	30 June 2021	
	Apprentices and Skills programmes	31 March 2015	30 June 2021	
Limpopo Dept Public Works	81 Welding Learnerships	24 February 2017	30 June 2021	
	Artisan recognition of prior learning	25 March 2019	30 September 2023	
Limpopo Office Of The Premier	Development of 100 apprentices and 70 interns in the manufacturing and engineering sector	29 March 2017	31 March 2023	
Mpumalanga Department Of Education	Apprenticeship&Bursaries	25 March 2019	30 September 2023	
North West Office of The Premier	Training of Artisan	16 March 2015	31 March 2021	

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.

Table 15 - Research Partnerships

Organisation	Objective	Start Date	End Date	Value of the partnership
Human Sciences Research Council	Understanding the skills development needs of Black Industrialists	13 March 2019	15 June 2021	Credible research to guide decision making in line with national and sectoral skills priorities
Joint Education Trust Education Sevices (Jet)	Post Education and training Collaboration and Learning Opportunities and Utilisation of Data	04 February 2020	31 March 2024	
National Union of Metalworkers & B&M Analysts	Chamber Research-Auto	19 March 2020	31 March 2021	
MIBCO	Chamber Research-Motor	19 March 2020	31 March 2021	
Nelson Mandela University (CIPSET)	Learning work through a student-driven association	03 July 2018	31 March 2021	
Plastics Federation Of SA	Chamber Research - Plastics	20 March 2020	31 March 2021	
SEIFSA & FR Research	Chamber Research-Metal	11 November 2020	30 September 2021	
Stellenbosch University (School of Public Leadership)	Understanding Green Skills in the mer sector	28 March 2019	31 March 2021	
University of Cape Town (DPRU)	Economic Complexity	03 June 2019	31 August 2022	
Walter Sisulu University	Research and Career Development	24 July 2020	31 December 2023	

4.5 Successful Partnerships and Challenging Partnerships

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.

These have been highlighted by merSETA managers responsible for partnerships and projects.

Table 16: Partnership Challenges and Successes

Partnership Type	Partnership Challenges	Partnership Successes and 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. • The ability of the SETA to support infrastructure and equipment has raised the quality of education somewhat and provides more scope to partner. • There is still a weakness in terms of partnering with employers to open up their workspaces as training spaces - exacerbated	• A key to success is to work with both TVET Colleges and Employers to review their needs and implement effective interventions. * Clearly articulate TVET college and employer challenges - particularly with regards to infrastructure and resources required for successful implementation of interventions. • Work with employers as partners or successful for WBL. • Seek alternatives to meet the workplace component, particularly in terms of technologies such as simulations and virtual learning. • Learner support and management from

	by the closure of companies in recent times. • Uptake of SETA programmes must be assessed to better understand demand and supply and plan accordingly - evaluation of programmes is key.	enrolment to completion and work placement must be carefully managed and monitored.
HEI	• Like TVET colleges, uptake of courses/qualifications can be problematic and recruiting learners may not yield successes. • The workplace component is becoming ever more important with learners requiring work placements to gain practical experience. • Conceptualisation and clarity on required outcomes and outputs are not always in place resulting in mismatch between the HEI and SETA expectations.	• 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.
Government partnerships	• Lack of traction with regards to implementation. • Capacity to fully support the project/programme remains problematic.	• Effective project management is key as well as ensuring that both partners are committed to achieving the objectives of the partnership. • A demand led approach ay 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 fieldwork as providers and respondents adjusted to online interviews, focus groups and workshops.	• Good technological interventions and tools to assisted with connecting the required parties. • Video and visual resources assist providers in better understanding the sector and their processes even though they could not meet on site.
Research - Chamber commissioned	• Capacity to conceptualise, develop and critically review research proposals limits scope of potential projects. • Agreement and teamwork among members may delay implementation.	• Capacity development of Chamber members in terms of research skills has significantly improved their ability to conceptualise projects. • Larger projects with new innovations and a bigger scale are possible due to increased capacity and teamwork. • Chamber management and coordination assists the smooth running of projects.

4.5 Planned Partnerships

In the preceding sections of this report, the impact of the COVID-19 pandemic is evident in terms of its ramifications on the mer sector and the work of the merSETA. To this end the merSETA has but in place a plan to assist the sectors to rebuild as per the tenets of the ERRP. Partnerships will be the main mechanism through which the SETA is able assist government priorities raised in the ERRP and the linked Skills Strategy. Although the merSETA has not yet finalised its envisioned partnerships, it has emerged that this iteration of the SSP will be used to guide the types of partnerships the SETA should pursue.

4.7.1 Partnerships for improved project monitoring, learner support and placement

To overcome some of the challenges highlighted in partnerships, it is imperative that the merSETA grows internal capacity for project management.

In order to provide the best service to its stakeholders, the merSETA has endeavoured to implement sound project management models, partnering with organisations to manage partnerships. To this end, an intermediary organisation model similar to the ESDA model has been adopted to manage the entire value chain involved in the skills development process from recruitment of learners to placement, to management of training including collection and storage of portfolios/log books, management of integration of workplace and skills development training, allocation of mentors and assessors, provision of critical skills development, trade test management; stipend payments and record keeping; payments to skills development providers, trainers, assessors and payments to employer training companies.

The merSETA currently has two projects underway. The first is a partnership with the IDC to maximise industrial development and assist in developing the business sector in line with sectoral demands as a result of the pandemic and the ERRP. In this partnership, the merSETA has endeavoured to partner with institutions who have the capacity to take on large scale interventions in response to the four-fold crisis as highlighted by the Minister.

Another partnership will be with SACGRA (South African Council for Graduates) in which the implementation partner will recruit graduates into workplace learning opportunities, place them, monitor them, and ensure successful completion of the programme. This is also to ensure that the merSETA opens opportunities for graduates to gain work experience. The issue of partnering with employers to open the workplace as a training space has at time been either met with contention or hesitance and through these types of interventions the merSETA is trying to entice the employers to become active participants in skills development.

4.7.2 merSETA Partnership response to ERRP (rebuilding in the midst of COVID-19)

In conjunction with the ERRP, the Minister of Higher Education, Science and Technology emphasized following government priorities for 2021:

(i) Defeat the COVID-19 pandemic.
(ii) Accelerate economic recovery.
(iii) Implementation of economic reforms to create sustainable jobs and drive inclusive growth.
(iv) Fighting corruption and strengthening the state.

The table below outlines the potential partnerships and currently continuing partnerships that the merSETA will embark on to assist.

Table 17: ERRP Partnerships

National Priority aligned to ERRP	Partnership Intervention
Assist the prevention of further job losses.	The merSETA will explore partnerships with other SETAs, particularly in the goods cluster to identify cross cutting skills priorities, working together to ensure cross sectoral relevance of skills.
Ensure a deep understanding of the challenges faced by sectors.	The merSETA has conducted research to understand challenges confronting the sector. The findings informed the basis for the 2021/22 plans and will therefore influence implementation of projects aimed at addressing the current challenges. A continuing partnership with TIPS (to the end of 2021) will assist in this regard. A continuing partnership with UCT (DPRU until 2022) to understand economic complexity in the mer sectors and capabilities of employers to pivot to manufacture new products.

Align to the skills and innovation strategy.	Innovation has been a recurring theme in merSETA projects and programme and with the renewed call from the Minister a renewed approach needs to be explored. Research is being concluded to assess the viability of implementing simulation and virtual reality training. The outcomes will inform partnerships to develop skills innovations to better serve the needs of the sector in the current climate. The green economy, the circular economy and renewable energy are prioritised for interventions.
Prioritise youth, women, and vulnerable groups.	The merSETA has put in place targets for PWD and will continuously review to ensure these are aligned to the national policy. Priority projects include black female empowerment in management, black industrialists, and channelling youth into placement opportunities. Youth entrepreneurship is a key area of focus.
Ensure inclusivity and promote fair access to training opportunities (Support the development of multi-purpose education, science, and skills development centres).	The merSETA to address inequalities by ensuring the participation of people from marginalised communities and rural areas. Structural transformation remains a key focus area in the merSETA.

The merSETA is yet to finalise evaluations of potential partnerships in line with the above-mentioned priorities. These will be reported in the 2023/24 SSP update.

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 business sector, skills for entrepreneurship, social entrepreneurship, and workplace experience.

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 31 below.

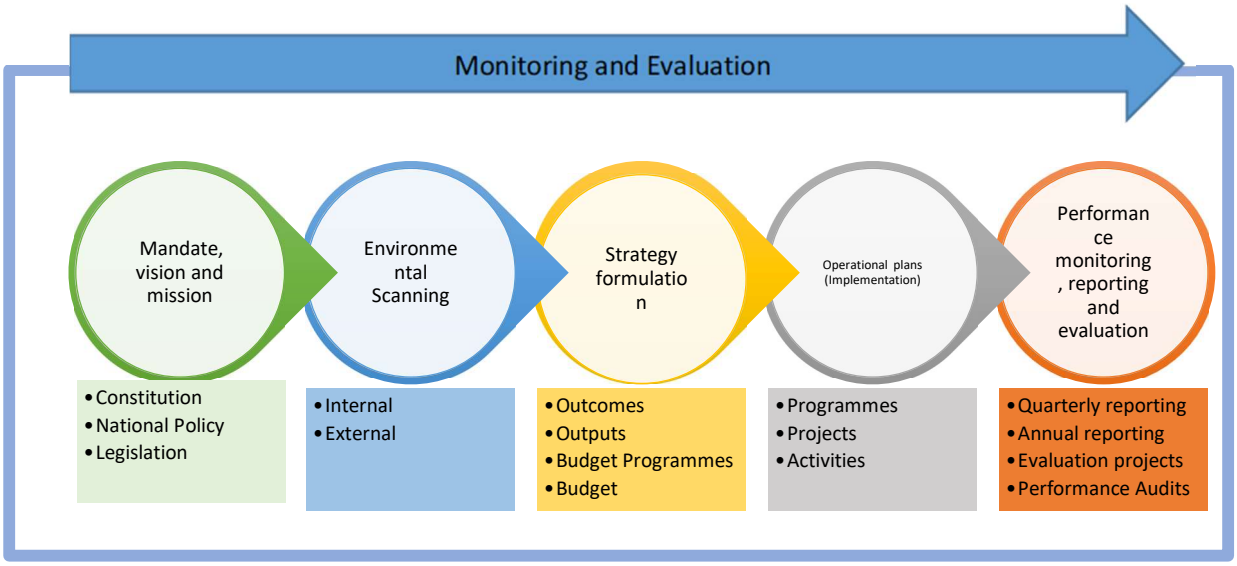

Figure 32: Role of M&E in the strategic planning process

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 18: 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 outco mes and outputs are in line with the merSETA Quality objectives. This is critical in supporting the merSETA in meeting its stak eholder and regulatory requirements as well as improving i ts effectiveness and efficiency on a continuous basis. The ISO 9001:2015 requirements identify performance eval uation as a critical performance indicator for the entity that needs to be monitored, analysed, and evaluated. The merS ETA has, therefore, adopted internal audits assessments an d management reviews as tools and mechanisms to ensure that the processes are functioning as per the planning requirements.	The merSETA has implemented a knowledge management system for promoting the effective management and gover nance of information and knowledge as a strategic asset. KM guides planning, strategic decision making and operatio nal efficiencies in terms of operational and programmatic outcomes and outputs. The KM system has been instrumental in driving the digital transformation agenda to transform organizational activities, processes, competencies and models to fully leve rage the changes and opportunities presented by digital tec hnologies.	The merSETA has established a labour market information sy stem for coordinating, collection, processing, storage, retriev al, and dissemination of labour market information. The M&E system is a critical component of the merSETA labour market information system to provide credible data f or skills planning in the mer sector. Strengthening data mana gement systems are key to the successful implementation of LMI system through a process of reviewing and continuous i m- provement. Similarly the KM system also works in tandem with the LMI and M&E data systems to ensure quality data.
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 Figure 35 below:

Figure 33: 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 2021/22 SSP update and guide the development of the 2021/22 SP and APP are summarised below. The extent to which these have been addressed is also highlighted in table 19. The strategic priorities identified in the 2020/21 SSP informed the merSETA Accounting Authority strategic session which was instrumental in developing the new five-year strategy (2020/21 – 2024/25) and the 2021/22 APP. 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 19: Implementation of priorities identified in the 2021/22 SSP, SP and APP

Priorities identified in the SSP and captured in the APP/SP
Supporting Structural Economic Transformation through growth and inclusiveness:
• Research projects like the Skills for Black Industrialists continued to provide insights and Discretionary funding was aimed at skills for entrepreneurship and Black industrialists. • 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. • The SETA however failed to meet its targets of funding training on entrepreneurial skills to support establishment of own business.
Skills for occupations of the future and for employment opportunities in emerging and new economies:

- 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.
- Concluded research on skills needs in the midst of the CVID-9 pandemic to assist the mer sectors to identify skills in the short- and medium-term future in line with the ERRP.
- 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.

Advances in education, training, and curriculum development:

- 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.

Strengthening the role of the SETA as an intermediary body to facilitate the transformation and responsiveness of the skills development ecosystem:

- merSETA supported over 1400 employers,
- 1500 small businesses,
- 25 NGOs and CBO and over 260 NLPEs6.
- 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 2 of the PSET-CLOUD interoperability project aimed at strengthening the PSET digital ecosystem to improve planning, collaboration and decision making

5.6 MEASURES TO STRENGTHEN ACHIEVEMENT OF SKILLS PRIORITIES

The merSETA in the 2020/2021 financial period met the majority 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),

6 NLPE (Non levy paying enterprises)

which is essentially linked to all merSETA funded interventions. It is hoped that with the marginal increase in growth experienced in the last quarter of 2020, merSETA will be able to meet and exceed future targets and play its role in ensuring education and training for the current and future world of work is taken up with fervour.

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.

5.7 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 heavily hit by the socioeconomic consequences of COVID-19 under what was regarded as an economy in crisis even before the onset of the pandemic. The SSP has prioritised the government led ERRP and sector master plans which assists the merSETA response to the skills development demands of the sectors.

As reported in the 2020/21 SSP update, the sectors have seen the impact of the 4IR expedited in terms of new business processes, rapid uptake of new technologies and remote work as well as the

notable increase in employment. This increase which was driven more by new labour market entrants rather than workers who had been retrenched or suffered a lack of business due to the COVID-19 lockdown. Many of the key response requirements highlighted in the previous SSP have been reiterated through national and sectoral plans. The dire reality faced by unemployed youth, women and marginalized groups has once again been raised as a key concern at both national and sectoral level. It is imperative to therefore make investments in the development of the informal and township economies which will promote means of accessing gainful work and sustaining decent livelihoods.

From the first chapter it is evident that there have been some gains in terms of economic growth and employment in the sectors. There has been growth in the services sector and even in the mer sectors it seems that new business models rely heavily on meeting the discerning demands of customers which even in manufacturing raises the need to ensure customer focused, technologically advanced service delivery.

There have been major investments in the mer sectors, particularly in the automotive sector. The auto sector is heavily influenced by the impact of new technologies in terms of hybrid and electric vehicles, sophisticated infotainment, and driver assistance systems as well as the evolution of mobility towards green energies and, efficiencies in public transport and infrastructure. The whole auto value chain is facing massive change at a rapid pace. Key national imperatives for transformation, localisation and reindustrialisation within an innovative atmosphere has thus once again been highlighted in the manufacturing sector. The plastics sector has highlighted opportunities in the sector master plan to increase productivity and ramp up efforts to reduce litter and increase recycling. The sector has also benefited from its participation in a variety of sectors including agriculture and infrastructure with further opportunities identified to support new technologies in the space of additive manufacturing and materials development. The metals & engineering sector has suffered continued negative impacts with bleak outlook unless supported by investment and government projects to boost its production and sales, especially for products such as steel and other related downstream products such as roofing material particularly in the construction sector.

Chapter 2 presented the main skills change drivers for the mer sector, there are drivers that are directly linked to COVID-19 and other drivers that relate to the spin off effects of the global economy because of the pandemic. New technology, automation and digitalization remains the key driver of changing business processes and operations is the impact of big data, artificial intelligence and robotics. The circular economy is still a major driver in terms of cleaner energy and production as well as the new emergent businesses related to upcycling, recycling and repurposing goods in a way that minimizes the impact on the environment and provides opportunities for economic growth. Higher skills intensity has been noted as a key impact because on the focus on technology and the green economy as workers are not required to do more with less manual tools and more technologically enabled tools and processes. The notion of dual or multiple trades has come up strongly as a key requirement to meet the demands of the sectors going forward with a keen focus on IT skills such as data analysis, coding and complex problem solving.

Furthermore Chapter 2 highlighted the key national imperatives as expressed through key strategies and plans. It would be amiss of the mer sectors if these were not carefully considered in the current sector context. Key issues such as GBV, the dynamics of the social economy and informal sectors as well as the plight of the youth and women must be considered within the skills planning framework as well the strategic growth plans as illustrated by the ERRP, NDP and NSDP. Targeted interventions are required to ensure inclusivity and a just transition to the new normal with respect to technology and the green economy as well as global drivers to ensure we produce a workforce able to compete at international standards.

Chapter 3 reflected occupational shortages and skills gaps. It elaborated on the occupations, skills and skills gaps associated with the mer sector. Analysis of the key skills demands in the mer sectors

has been shown to have many similarities and overlaps with the skills demands highlighted in the ERRP skills strategy. Future skills related to the needs of the sectors in the time of COVID-19 has demonstrated very similar results however a key concern is the magnitude of the demand. It is difficult for sectors to elaborate on the magnitude of demand under prevailing uncertainties related to the economy and a lack of confirmed investments from the private sector as well as government. In addition, the supply side of skills is a key contributor to the highlighted demands with the industry stressing the importance of the supply from general education and the belief that there must be more investment in the technical high schools to produce the calibre of learners that can take up opportunities within the mer sectors for further skills development.

Future skills are already upon us and efforts to expedite upskilling and reskilling must be prioritized within the PSET sector for workers and newly qualified graduates, the youth and women in particular. The highlighted skills gaps are related to issues of STEM, new technology, IT skills and in general skills required within the digital economy.

Chapter 4 raised the importance of the partnerships model to achieved successful outcomes for the sector and its learners. Without good partners who are willing to put in the effort to see skills projects and programmes to fruition, the mandate of the SETA is dead in the water. Efforts must be exerted in formulating partnerships proactively to ensure success and deliver high quality, relevant skills to the labour market. The merSETA has noted the need to implement innovations with respect to the management of its wide array of partnerships, particularly with respect to learner support, monitoring and evaluation. It is imperative to ensure that new partnerships are crafted such that they cater to the needs of the key partners, that of industry, workers, learners, and government. Agility in its ability to form strategic partnerships was a key learning for the merSETA amid the COVID-19 pandemic in 2020. Such agility is a key enabler to assist the sectors to reach their potential through skills interventions however nurturing the partnerships and ensuring that they meet their intended objectives still requires some improvement.

Chapter 5 demonstrated that the merSETA has put in place M&E processes to assist it in meeting its mandate. However, there are still some improvements required to fill the gaps in the system particularly with respect institutionalising the M&E. It is recognised that the importance of credible, reliable and valid data cannot be overstated. To this end M&E is strengthened by collaborations in knowledge management and quality management systems. These collaborations combined with the current efforts to strengthen the PSET sector through the PSET-CLOUD and Digital Ecosystems Projects will streamline institutional efforts with regards to M&E. The SETA is confident that once these efforts bear fruits, the merSETA will be in a good position to not only meet and exceed its targets but that its reporting mechanisms will be much improved and in line with good data governance and practice.

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 the merSETA should:

- Documents, plan, incorporate and reflect on research findings.
- Review recommendations and develop implementation strategy.
- Share and publicize research for wider consumption and feedback.
- Develop organizational research agenda.

6.3.2 Digital ecosystem implementation

The recognition of data as a strategic asset for strengthening strategic planning, strategic decision-making, performance reporting, governance and operational efficiency calls for the following:

- Data-centricity enabled and monitored.
- Data protected under robust governance framework.
- KM, M&E and QMS systems aligned for streamlined data storage, sharing and reporting.
- Organisational buy-in and implantation of data hygiene[7]

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 following are required:

- M&E aligned to data-centric approach.
- Internal partnerships honoured and supported.
- Quality assurance, records management, quality management and management information systems streamlined.

6.3.4 Partnerships prioritised and the preferred model of sectoral engagement.

Partnerships in the development and implementation of skills development programmes and initiatives will remain pivotal:

- Partnerships recognised as the vehicle through which the merSETA is able to fulfil its skills development mandate.
- All partnerships informed by the strategic priorities.
- Aligned to national priorities of development and transformation to address social and economic demands.
- Should include global and cross sectoral synergies.
- Requires a proactive approach.

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. To this end the following should be implemented:

- A strengthened merSETA governance to facilitate skills development.
- Influencing policy and affect policy to be responsive to change and innovation in education, training and skills development.
- The funding mechanisms of the SETA should be reviewed such that focus is on quality and impact.

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 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 following are prioritized:

- Skills for localisation – local manufacturing in the mer sectors for internal consumption and export

7 Data hygiene is defined by the International Data Sanitization Consortium as the process of ensuring all incorrect, duplicate or unused data is properly classified and migrated into the appropriate lifecycle stage for storage, archival or destruction on an ongoing basis through automated policy enforcement.

- Skills for a digital economy – skills for the adoption of new technologies and new products (diversity)
- Skills for supporting the growth of township and rural economies as well as community development.
- Skills for transformation, economic empowerment and equitable wealth generation.
- Skills for professionalisation of the sector

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. To this end the merSETA highlights the following:

- Interventions developed to support future skills. Including micro-credentials.
- Supporting entrepreneurship in manufacturing and social entrepreneurship within township and rural economies.
- Researching working in a sharing economy and types of learner support needed to transition to new methods of teaching and learning
- Simulated and virtual factories for learning to be researched and recommendations taken on board to assist transition to work in the absence of a workplace.
- Upskill to take up new opportunities at higher skills level.
- Reskill to take up opportunities in lateral and changing careers.
- Multi-skill to aid the diverse skills requirements of small companies and the gig economy.

6.4.3 Supporting skills for sustainability, the green and circular economies

The 4IR and the green economy 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. As such the following has been prioritised:

- Support the development of TVET interventions/qualifications in line with the green economy.
- Explore the potential of the green and circular economies within the mer sectors, rural and township economies.
- Support skills development for youth and women in the green economy – transformation and inclusivity to take up new and emerging opportunities.
- Support environmental sustainability in manufacturing – clean and green processes.
- Support skills for green mobility – hybrid and electric vehicles
- Support skills in renewable energy – mer sector manufacturing, repair and service of equipment

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 Continuing to strengthen 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

The COVID-19 pandemic has compounded the complexities in which the merSETA must achieve its mandate. The merSETA however has intentionally aligned its planning to the opportunities presented by the pandemic and is committed to putting in place its planned interventions in light of the current economic climate.

As reported in this SSP, the sector has not experienced significant growth in the recent past, the sector was already on a downward trajectory. The youth, marginalised communities and the social 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.

ANNNEXURE 1: REFERENCE LIST

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ANNNEXURE 2: MERSETA PRIORITY SKILLS

OFO	Occupation	ACM	Auto	Metal	Motor Retail	New Tyre	Plastics
2019-214101	Industrial Engineer	x	x	x	x		x
2019-214401	Mechanical Engineer	x	x	x			x
2019-652301	Metal Machinist	x		x	x		x
2019-132107	Quality Manager	x		x	x		x
2019-653101	Automotive Motor Mechanic	x		x	x	x	
2019-121101	Finance Manager	x		x	x	x	
2019-122102	Sales Manager			x	x	x	x
2019-242303	Human Resource Advisor			x	x	x	x
2019-311904	Manufacturing Technician			x	x	x	x
2019-653303	Mechanical Fitter	x		x	x		x
2019-671202	Millwright	x		x	x		x
2019-718905	Engineering Production Systems Worker	x		x	x		x
2019-652201	Toolmaker	x		x			x
2019-226302	Safety, Health, Environment and Quality (SHE&Q) Practitioner			x	x	x	x
2019-643202	Vehicle Painter	x		x	x		
2019-652302	Fitter and Turner	x		x	x		
2019-671208	Transportation Electrician	x	x	x	x		
2019-714101	Rubber Production Machine Operator	x			x	x	
2019-121901	Corporate General Manager		x	x	x		
2019-122101	Sales and Marketing Manager	x		x	x		
2019-132104	Engineering Manager		x	x		x	
2019-243301	Industrial Products Sales Representative	x		x	x		
2019-311401	Electronic Engineering Technician	x		x			x
2019-312201	Production / Operations Supervisor (Manufacturing)			x		x	x
2019-331201	Credit or Loans Officer			x	x		x
2019-431101	Accounts Clerk			x	x	x	
2019-432201	Production Coordinator	x		x			x
2019-524903	Sales Clerk / Officer	x				x	x
2019-643201	Industrial Spraypainter	x		x	x		
2019-651202	Welder	x		x	x		
2019-651302	Boiler Maker	x		x			x
2019-671101	Electrician			x	x		x
2019-215101	Electrical Engineer		x	x		x	
2019-522303	Automotive Parts Salesperson			x	x	x	
2019-241102	Management Accountant		x	x			
2019-684904	Panelbeater	x			x		
2019-714208	Plastics Manufacturing Machine Minder	x					x

2019-214104	Production Engineering Technologist		x			x	x
2019-311501	Mechanical Engineering Technician		x	x			x
2019-653306	Diesel Mechanic	x		x	x		
2019-121905	Programme or Project Manager			x			x
2019-132401	Supply and Distribution Manager	x		x			
2019-242101	Management Consultant			x	x		
2019-251201	Software Developer			x	x		
2019-311301	Electrical Engineering Technician	x		x			
2019-332302	Purchasing Officer		x	x			
2019-411101	General Clerk			x	x		
2019-431102	Cost Clerk	x			x		
2019-432101	Stock Clerk / Officer				x		x
2019-642702	Refrigeration Mechanic			x	x		
2019-651403	Metal Plate Bender	x		x			
2019-671204	Lift Mechanic			x	x		
2019-653306	Diesel Mechanic	x		x	x		
2019-652205	Master Toolmaker	x					
2019-121908	Quality Systems Manager		x			x	
2019-132102	Manufacturing Operations Manager		x	x			
2019-243103	Marketing Practitioner				x	x	
2019-653301	Industrial Machinery Mechanic	x		x			
2019-684305	Quality Controller (Manufacturing)					x	x
2019-714204	Plastics Production Machine Operator (General)	x					x
2019-132402	Logistics Manager	x					
2019-311201	Civil Engineering Technician			x			
2019-311801	Draughtsperson			x			
2019-313501	Metal Manufacturing Process Control Technician			x			
2019-325705	Safety Inspector			x			
2019-351201	ICT Communications Assistant			x			
2019-524901	Materials Recycler						x
2019-642701	Air-conditioning and Refrigeration Mechanic			x			
2019-712101	Metal Processing Plant Operator			x			
2019-714202	Plastic Compounding and Reclamation Machine Operator						x
2019-734402	Forklift Driver			x			
2019-211403	Materials Scientist						x
2019-212101	Actuary				x		
2019-214102	Industrial Engineering Technologist					x	
2019-214103	Production Engineer		x				
2019-214501	Chemical Engineer						x
2019-214605	Metallurgist			x			
2019-214605	Metallurgist			x			
2019-215102	Electrical Engineering Technologist		x				

2019-251102	Data Scientist		x				
2019-311905	Industrial Engineering Technician		x				
2019-313105	Wind Turbine Service Technician			x			
2019-313109	Solar Photovoltaic Service Technician			x			
2019-331502	Insurance Investigator				x		
2019-333905	Supply Chain Practitioner					x	
2019-522302	Motorised Vehicle or Caravan Salesperson				x		
2019-653307	Heavy Equipment Mechanic			x			
2019-671202	Millwright			x			
2019-671203	Mechatronics Technician			x			
2019-672105	Instrument Mechanician	x					
2019-712201	Electroplater	x					
2019-721901	Product Assembler						x