merSETA

MANUFACTURING, ENGINEERING AND RELATED SERVICES SETA

SECTOR SKILLS PLAN 2020 - 2025

LEADERS IN CLOSING THE SKILLS GAP

OFFICIAL SIGN OFF

FINAL SUBMISSION OF REQUIRED SSP DOCUMENTS AS PER DHET GUIDELINES FOR SSP 2020 - 2025

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 and Final SSP which was developed in accordance with the SSP Framework produced by DHET.

Ms S. Nomvete
Strategy and Research Executive Signature: .....

Mr W. Adams
Acting Chief Executive Officer Signature: .....

Ms L. Letsoalo
Chairperson of the merSETA Accounting Authority Signature: .....

1 August 2019

COVER LETTER

1 August 2019

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

SSP Cover Letter: merSETA SSP 2020/21

To whom it may concern,

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) 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 2020/2021.

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

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.
- The WSP 2019 collected employee information at individual level which means that the data are no longer aggregated on OFO. The data in the SSP reflects over 4500 levy paying companies.
- WSP data have more stringent data quality controls in place and utilises codes from OFO 2017.
- 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 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.

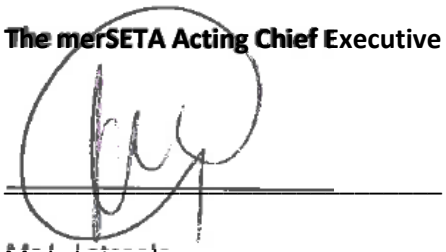
The following outlines the tasks further refined for the Final submission in August 2019:

Task to be completed	Comment
a) Analyses of the first data drawn from the merSETA NSDMS in May 2019 (Updated)	Complete
b) Final Priority Skills List	The Final Priority Skills List has been developed, refined with additional analyses of the merSETA QMR and Grant Disbursements Data.
c) Sector representativity in the final data (QES)	Data is similar to what stakeholders have communicated
d) Stakeholder Feedback Incorporated	Complete
e) Update as per DHET feedback session to be scheduled in July 2019	Feedback to be finalised 19 July 2019

Kind regards

Mr Wayne Adams

The merSETA Acting Chief Executive Officer



Ms L. Letsoalo

Chairperson of the merSETA Accounting Authority

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RESEARCH PROCESS AND METHODS.

The merSETA's SSP research process does not take place through a linear approach, rather it involves various activities that occur simultaneously to ensure that the most accurate data is presented in the SSP. The main activities which can be seen as part of the process, although not exhaustive include 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 WSP forms the largest, most reliable source of information from our stakeholders directly and it is analysed for vacancies, employment, unfilled vacancies, and number of companies, PIVOTAL plan, OFO codes and Chamber statistics.

The WSP for 2019 comprised information at individual employee level which yields more accurate information with respect to occupations and job titles. The data represents information from over 4600 companies, who submitted details of over 550 000 employees. The data was weighted to represent industry totals based on the levy amount paid. The levy amount from each company is used as a proxy for employment. Each of the manufacturing, engineering and related services sectors (mer-sectors) was weighted according to levy categories (based on size and income). The weights were then applied to each employee in the data set.

Furthermore, the merSETA analyses its internal Quarterly Monitoring Report (QMR) and Grants disbursements data housed in the Great Plains database to gauge the level of transformation and industry training support facilitated by the SETA. Labour market and desktop research informs the direction of sector requirements in terms of skills and informs the verification process whilst Chamber workshops enable merSETA to gain key inputs for any skills omitted in the desk research verification and anecdotal updates while also providing a context to the skills list. The Accounting Authority assists with a high-level review of skills verification and anecdotal updates.

Research projects that fed into the SSP

This section provides an overview of research projects that have fed into the 2020/2021 SSP. It is also noteworthy that these projects were commissioned in 2018 and they are expected to end in 2020, while other project have implementation phases that go beyond 2020. The first four projects have been completed and the rest are still in progress.

1. **Skills Demand and Supply in the Formal, SMMEs, Co-Operative and Informal Sectors of the merSETA**

The primary aim of this study was to understand, explore and document key attributes of skills supply and demand in the formal sector, Small-Micro Medium Enterprises (SMME), co-operatives and the informal sector. The objective was to identify opportunities for skills development that will support enterprise development within these sub-sectors. The results

of the study will assist the merSETA stakeholders to assess relevant interventions for skills development.

This was a national scale study which clustered different provinces into regions and is conducted over a period of 12 months. The methodology was comprised of a combination of quantitative and qualitative approaches. These include desktop review of relevant literature, interviews with employers, training providers, trade unions, industry associations and provincial government; and field research (surveys) of the informal sector, employers and of training providers.

The main findings of this research can be summarised into two broad viewpoints. One suggest that there is a high demand of artisanal skills and in engineering occupations across all merSETA sub-sectors. On the other hand, the ethnographic research findings suggest that merSETA stake holders do not have a homogeneous views about skills development. Despite accepting that high-end skills was imperative if the promise of an expanded SMME sector was to be realised, they felt that SETA processes made it extremely difficult for SMMEs to participate in training.

2. The merSETA Evaluation Report: People with Disability.

The overall aim of the evaluation was to examine the impact of the merSETA Disability Project on learners, employers and training providers, and to make recommendations in terms of skills delivery, curriculum and learning conditions within companies.

Project was implemented in six provinces from 2012 until August 2018. The study utilised both qualitative and quantitative methods to make a cross-cutting assessment of the People programmes in terms of processes, impact and the cost benefit. Data collection was conducted through a review of merSETA documents and data which reflect the number of beneficiaries and activities implemented for people with disability. Then it was triangulated with qualitative data collected through interviews and focus groups from people with disability, training providers and employers.

The underpinning findings of this evaluation study was, in spite of the fact that people with disability were provided opportunities to training, the programmes tended to adopt traditional approaches that does not accommodate the conditions that can constrain people with disability to training. Whilst, the training provider and employers had a challenge in finding people with disability which suited their criteria.

3. Plastics Chamber Research - Plastics Qualifications in HEIs: What is the shortfall or lack of plastics technicians and plastics engineers in South Africa and what can be done to address the problem?

Informed by the findings and recommendations of the previous Plastics Chamber Research (2017), that there is a shortage of technicians and the lack of preparedness of graduate engineers entering the workplace, the focus of this research was on education and training provision for the plastics sector at University and University of Technology level. The overall purpose of the research was to understand the extent of shortages of technicians and plastics engineers in South Africa and to establish what can be done to address these problems.

This study used a mixed method approach comprised of quantitative and qualitative research. Data collection was conducted using semi-structured interviews, desk-top research and documents analysis. During the first phase, a preliminary literature review informed the conceptualisation of the investigative and analytical frameworks. These in turn informed the design of the interview instruments which were verified by the Plastics Chamber Task Team.

4. Evaluation of the training layoff scheme

The purpose of the research is to evaluate the effectiveness and efficiency of TLS since its inception with reference to processes, outcomes and cost benefits of the programmes as part of the merSETA's M&E goal to improve its operational and organisational performance as well as to track the impact and results of its skills development interventions.

The evaluation utilised a mixed method research approach by conducting interview, workshops and survey with companies that were participating in the scheme. On the other hand researchers reviewed company literature documents and analysed the company database

The main findings of the study from the process, outcome and cost benefit perspective is that (i) there is widespread dissatisfaction from companies about the excessively bureaucratic and slow application process, (ii) between 2009-2018, 121 companies participated in the scheme of which 77 completed the training successfully, (iii) there is insufficient attention given to the appropriate training for displaced workers.

5. Lived livelihoods: Education advancing entrepreneurial livelihoods

This study aims to understand the way(s) in which education and training can expand sustainable livelihoods gained through entrepreneurship in manufacturing, engineering and related trades and occupations.

The study identified a purposive sample located in three research sites in Eastern Cape which includes a rural area, an established urban township and a Coloured township. A mixed methodology approach is utilised to capture (qualitative) the daily realities of young entrepreneurs in and to identify the sample (quantitative), a brief survey is administered to capture activities of youth in the motor, metal and plastics sectors. Once a sample is identified approximately 40 youth will complete livelihood diaries over a period of 12 months with researchers interviewing the youths every second month to discuss the diaries, the activities and skills needs of these individuals.

6. Atlas of occupations for the Manufacturing, Engineering & Related Services Sectors: An in-depth exploration of key occupations in transition

The study aims to provide the learners, workers and skills planners with a reference guide to occupations and jobs that are in demand in the Metals Engineering, Plastics, Auto, Motor and Tyre Manufacturing Sectors. Coupled with that, the study will elaborate on the jobs in the sub-sectors based on the OFO and value chains for manufacturing across all the chambers. It will elaborate on tasks, knowledge, qualifications required and longevity of the occupation given the conditions of Industry 4.0

The outputs of this project will enable effective monitoring of occupations that are becoming obsolete and will be used to plan for potential re-skilling, up-skilling and multi-skilling of workers to meet the demands of emerging and/or evolving occupations. It will ensure that stakeholders have a tangible tool to become more au fait with occupations and occupational demands.

7. Understanding the Skills Development Needs of Black Industrialists in the Context of Supporting Structural Transformation in the 4th Industrial Revolution: A National Research Study

The purpose of this study is to support structural transformation in the manufacturing, engineering and related services sector by understanding the skills development needs of Black industrialists such that Black industrialists become globally competitive in the context of the 4th industrial revolution. The objective is (i)to understand the skills challenges faced by Black Industrialists and their impact on local and global manufacturing sector competitiveness, (ii)Influence skills development and industrial/economic policy through credible research informed by a multi-stakeholder consultative process, (iii)Inform the development of relevant training interventions for supporting the development of locally responsive and globally competitive Black industrialists.

This is a national footprint study which employs triangulation (qualitative and qualitative) methodology. Qualitative interviews will be analysed using conventional qualitative thematic analysis and with the aid of either the NViVo or AtlasTi software. Data extracted from company and government documents will be presented in narrative form and supplemented with tables, graphs, diagrams and photographs.

8. Understanding Green Skills Within the mer-sector Partnership

Following a study that was conducted by merSETA in 2013 on sustainable green-related activities, this study aims to better understand how the merSETA stakeholders interpret concepts related to the green economy and how this has changed since 2013. Then, establish a baseline of the skills requirements that are needed by stakeholders now and in the near future to keep pace with the demands of the green economy.
The project will employ a mixed methodology approach that combines qualitative and quantitative methods, including stakeholder engagement workshops, online surveys and systematic literature review and document analysis. It will further be conducted in accordance with scientific principles employing various methods for each of the key objectives.

9. Learning work through a student-driven association.

This project intends to develop new and innovative ways of responding to youth unemployment and work-based learning among TVET College students located in Port Elizabeth. The project ultimately seeks to establish an association in which students learn by doing based on solidarity economics and create work

This research study is sub-divided into three phases, the first phase of the project looks at the literature on discourses and selected case studies (people's solidarity economies,

worker/producer cooperatives, alternative production systems, etc.) that are available internationally and nationally. The second phase will focus on the development of detailed business and implementation plan for student association, including Work integrated Learning component and curriculum. The third phase will focus on the production of research report which includes report on monitoring implementation of the business plan.

10. ICT4APP

This project is a response to the buzz of the Fourth Industrial Revolution/ Industry 4.0 and it seek to use the 4IR paradigm to re-imagine and develop a high quality new apprenticeship skills development process in South Africa that is more efficient, accessible, and scalable and that prepares apprentices for Industry 4.0. The ICT4APP is a four phased project which consist of the concept development and 3 stage project roadman. The ICT4APP platform will:

- ensure a largely paperless apprenticeship implementation system for two pilot occupations;
- make provision for apprenticeships for informal sector learners;
- act as a stimulator for participation of SMEs in hosting learners for workplace experience assignments;
- preserve quality development of learning, teaching and workplace interaction;
- modify learning behavior towards a self-directed, milestone-structured learning pathway, through the use of innovative technology.

EXECUTIVE SUMMARY

This SSP summarises the mer sector profile in terms of its employer and employee composition, economic trends and drivers of change, it highlights skills issues and skills priorities which all culminates in strategic actions to be undertaken to meet the needs of the sector.

The Sector Skills Plan update for the 2020/2021 period was developed at a time when there have been policy developments in terms of the promulgation of the National Skills Development Plan and the finalisation of the SETA landscape. This policy locates skills development in an integrated Post School Education and Training (PSET) System, in order to focus on a demand led model which aims to assist economic growth, restructure the economy in terms of ownership patterns and growth patterns, as well as ensure the labour market in South Africa is skilled and capable.

The economy however has taken strain with little to no growth, this in conjunction with the developments in technology has put additional strain on the economy and the skills in the job market have not seemed to keep pace with the demand. A significant number of workers in the mer sector operate at elementary and operator levels, particularly those aged 25-34; this group presents a viable cohort of further skills development in light of the needs of technological advancement.

Analysis of sector data demonstrates that the number of employees in the sector have decreased, vacancies in the sector have decreased and stakeholders have warned of further and contraction of the sector. These trends hare highly concerning, exacerbating already high levels of national joblessness and economic uncertainty. Furthermore our stakeholders need to remain globally competitive and the sector has seen a decline in traditional manufacturing production in favour of automation. These results have spurred the need to better assist small and medium business as well as informal sectors as these are key components for employment opportunities and skills development going forward. The implication of this is a higher demand for multi-skilled individuals who can work across sectors and occupations, therefore the notions of up-skilling, re-skilling and multi-skills needs to be implemented.

The merSETA is already exploring options to widen access to training through leveraging skills development opportunities in more small, medium and possibly even informal workplaces. This requires innovation in skills provision without hindering quality. Policy also needs to respond to these changes to create an enabling environment for innovation in skills provision to flourish.

The merSETA has capitalised on its partnerships, leveraging this as a mechanism for achieving its strategic objectives and to deliver high quality services to its stakeholders and learner beneficiaries.

The merSETA has established through partnerships a national and international footprint for implementing skills development initiatives contributing towards the revitalisation of technical-vocational education and training (TVET) which includes improving the competence of lecturers, trainers and teachers to provide work relevant skills interventions and exposing learners to international best practice.

1 SECTOR PROFILE

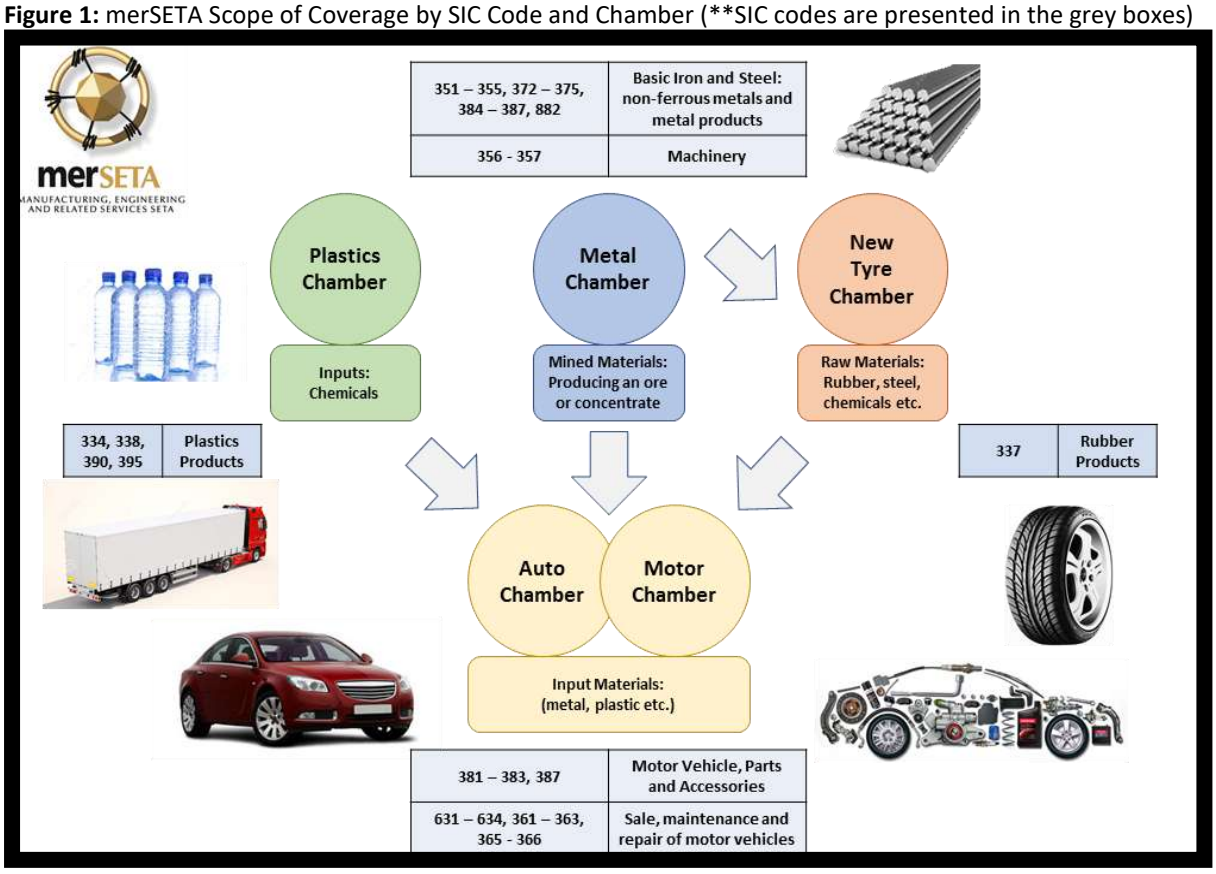
1.1 INTRODUCTION

The purpose of this chapter is to present the profile of the manufacturing, engineering and related services sector. It elaborates on the sector scope of coverage, key role players, economic performance and the profile of employers and employees. The chapter also describes the major sector characteristics that influence sector skills needs and skills development requirements. This chapter is informed by the supply and demand study which was commissioned by the merSETA in 2018, stakeholder feedback from the merSETA inter-chamber meeting held in May 2019, desk research and analysis of the WSP data extracted from the merSETA system on in May 2019.

1.2 SCOPE OF COVERAGE

The merSETA, established in terms of the skills development legislation of 1998, includes a range of manufacturing activities in addition to a few related service and retail activities. On the basis of the three-digit Standard Industrial Classification (SIC) codes used in capturing the data for the National Accounts, Figure 1 below outlines the industrial activities aligned to the merSETA scope of coverage and classifies them by Chamber. The figure depicts the interrelationships between the Chambers and demonstrates flow of inputs.

Figure 1: merSETA Scope of Coverage by SIC Code and Chamber (**SIC codes are presented in the grey boxes)



As demonstrated in Figure 1, all merSETA member companies belong to one of five Chambers. This five-chamber structure is represented in the table below which is informed by the Standard Industrial Classification of all economic activities (SIC) at 3 digit level. These sectors

make a substantial contribution to the total South African manufacturing sector. The merSETA is in the process of consulting its various governance structures to discuss the reconstituting of the merSETA chambers to become responsive to not only employer and worker needs but also national growth and development priorities through considering: the value chain approach; identified focus areas of economic growth, employment creation and social development encapsulated in strategies such as those for growing manufacturing through localisation and development of Black Industrialists.

Stakeholder discussions supported the notion of a Chamber demarcation to allow for more focused efforts on skills required by sector value chains, this allows for critical analysis of skills needs which in turn enables the clustering of skills and career pathing. This empowers workers in the sector to build a competitive market. Stakeholders also identified the need to use the Chamber restructuring as a means for providing concerted effort and focus on industries that have been neglected with regard to skills development and yet are industries where there is potential for job growth. Raising skills levels of workers in such industries becomes an imperative as skilled workers would be needed for jobs created. It has therefore been suggested that the motor chamber which comprises automotive component manufacturers as well as sales and after sales and services should be separated into an automotive components chamber (SIC 382, 383 and 387 as per the table below) and a motor retail and after sales service chamber (SIC 631, 632, 633 and 634 as per the table below) in the short to medium term with the view to having in the long term a consolidated Chamber that addresses the automotive value chain from components manufacturing to assembly and possibly sales and after sales service. Given the developments in the automotive space, it is deemed that from a skills development perspective, the arrangement will allow for influencing of policy directives, support localisation, increase global competitiveness though increased exports and foster research and development by increasing a skills development focus on a previously neglected sector due to an imbalance that emerged in a single chamber[1].

The standard industrial classification of the mer sectors are captured in the table below. It shows the current arrangement with regard to sector and Chamber.

Table 1: merSETA Scope of Coverage by SIC Code, Chamber and Industrial Sector

CHAMBER	SIC	DESCRIPTION	SECTOR
Auto	**381**	**manufacture of motor vehicles**	**Manufacturing**
Metal	351	manufacture of basic iron and steel	**Manufacturing**
	352	manufacture of basic precious and non-ferrous metals	
	353	casting of metals	
	354	manufacture of structural metal products, tanks, reservoirs and steam generators	
	355	manufacture of other fabricated metal products; metalwork service activities	
	356	manufacture of general purpose machinery	
	357	manufacture of special purpose machinery	
	358	manufacture of household appliances n.e.c.	
	361	manufacture of electric motors, generators and transformers	
	362	manufacture of electricity distribution and control apparatus	
	363	manufacture of insulated wire and cable	
	365	manufacture of electric lamps and lighting equipment	

[1] These sentiments were captured in Commission 2 of the merSETA Inter-Chamber Meeting 16-17 May at Emperors Palace.

CHAMBER	SIC	DESCRIPTION	SECTOR
	366	manufacture of other electrical equipment n.e.c.	
	371	manufacture of electronic valves and tubes and other electronic components	
	372	manufacture of television and radio transmitters and apparatus for line telephony and line telegraphy	
	373	manufacture of television and radio receivers, sound or video recording or reproducing apparatus and associated goods	
	374	manufacture of medical appliances and instruments and appliances for measuring, checking, testing, navigating and for other purposes, except optical instruments	
	375	manufacture of optical instruments and photographic equipment	
	384	building and repairing of ships and boats	
	385	manufacture of railway and tramway locomotives and rolling stock	
	386	manufacture of aircraft and spacecraft	
	387	manufacture of transport equipment n.e.c.	
	503	building installation	**Construction**
	504	building completion	
Motor	382	manufacture of bodies (coachwork) for motor vehicles; manufacture of trailers and semi-trailers	**Manufacturing**
	383	manufacture of parts and accessories for motor vehicles and their engines	
	387	manufacture of transport equipment n.e.c.	
	631	sale of motor vehicles	**Retail**
	632	maintenance and repair of motor vehicles	
	633	sale of motor vehicle parts and accessories	
	634	sale, maintenance and repair of motor cycles and related parts and accessories	
New Tyre	337	manufacture of rubber products	**Manufacturing**
Plastics	334	manufacture of basic chemicals	**Manufacturing**
	338	manufacture of plastic products	
	395	recycling n.e.c.	

It should further be noted that the chamber structure does not fully align with National Accounts Data which classifies the sectors as the Metal Sector, Automotive Sector (combining Auto, Motor and New Tyre Chambers) and the Plastics Manufacturing Sector.

1.2.1 Industrial Overview

This section provides a depiction of each of merSETA sectors' industrial activities and outputs. It starts with the metals sector which comprise metal foundries, fabricators, manufacturers and recyclers making inputs into (but not limited to) the automotive sector which also draws inputs from the plastics and new tyre sectors.

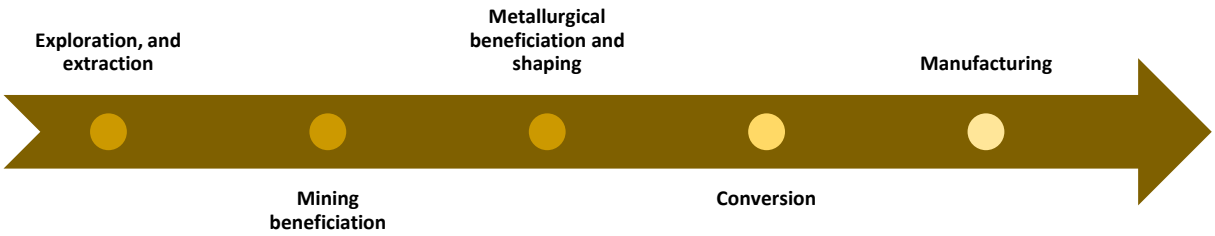
Metal Sector

The metal sector, including capital equipment, foundries, transport equipment, metal fabrication (CETEMF) and related sub-sectors, forms a substantial part of South Africa's manufacturing. The production of this sector is based on the country's rich natural endowment in a wide range of metals.

Foundries and metal fabricators produce the intermediate (and sometimes final) products that will be received by metal manufacturers who convert them to final products. Key markets for metal products are the auto sector and the construction industry. Metal recyclers complete and restart the cycle by returning scrap metal to the beginning of the value chain and manufacturing process to be reused in the production of new products (merSETA Supply and

Demand Study, 2018). Among metal manufacturers and metal recyclers, the metals sector has some of the smallest businesses.

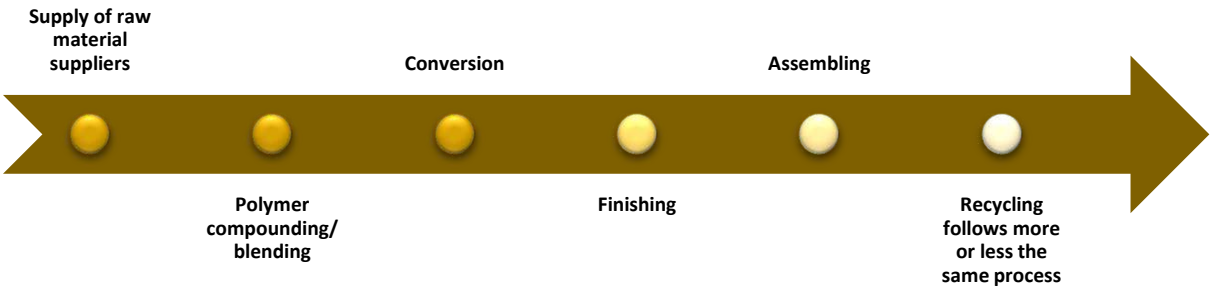
Figure 2: Metal Sector Supply Chain (Source: merSETA Supply and Demand Study, 2018)



Plastics Sector

The Plastics sector is well developed in South Africa and caters to both domestic and export markets. While plastics products are for the most part concentrated in the packaging, building, construction and automotive industries, there are also applications in textiles, electrical applications, electronics, mechanical engineering and agricultural industries (DTI, 2017). Recycling is also a key component of the sector.

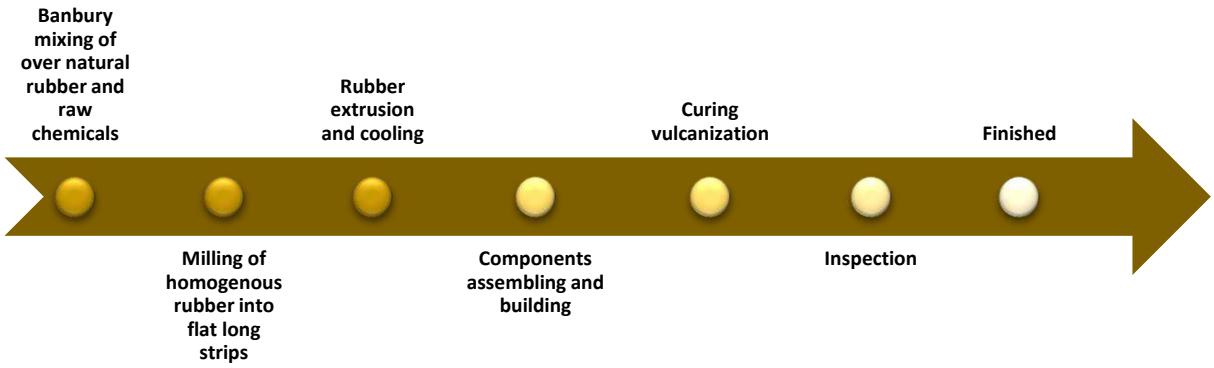
Figure 3: Plastics Sector Supply Chain (Source: merSETA Supply and Demand Study, 2019)



New Tyre Sector

The tyre sector is responsible for the production of new tyres. With just four locally based manufacturers, there are even fewer new tyre manufacturers based in South Africa than auto OEMs (merSETA Supply and Demand Study, 2018). Good Year, Bridgestone, Continental Tyres and Sumitomo Rubber are international heavyweights with production facilities in South Africa. Production of tyres is limited to 3 provinces: North West, KwaZulu-Natal and the Eastern Cape (merSETA Supply and Demand Study, 2018).

Figure 4: New Tyre Sector Value Chain (Source: merSETA Supply and Demand Study, 2018)

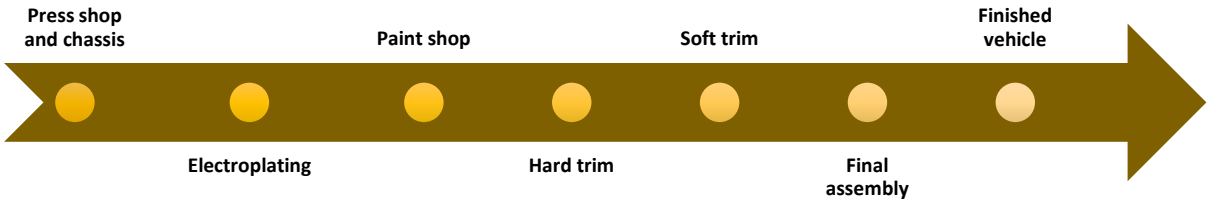


Automotive Sector

The automotive sector, incorporating Original Equipment Manufacturers (OEMs), the New Tyre Chamber and Motor Chamber, includes companies linked to each other through the automotive production and distribution value chain. The metals, plastics and rubber product sectors provide key inputs into the components manufacturing and vehicle assembly sections of the value chain.

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.

Figure 5: Automotive Sector Supply Chain (Source: merSETA Supply and Demand Study, 2018)

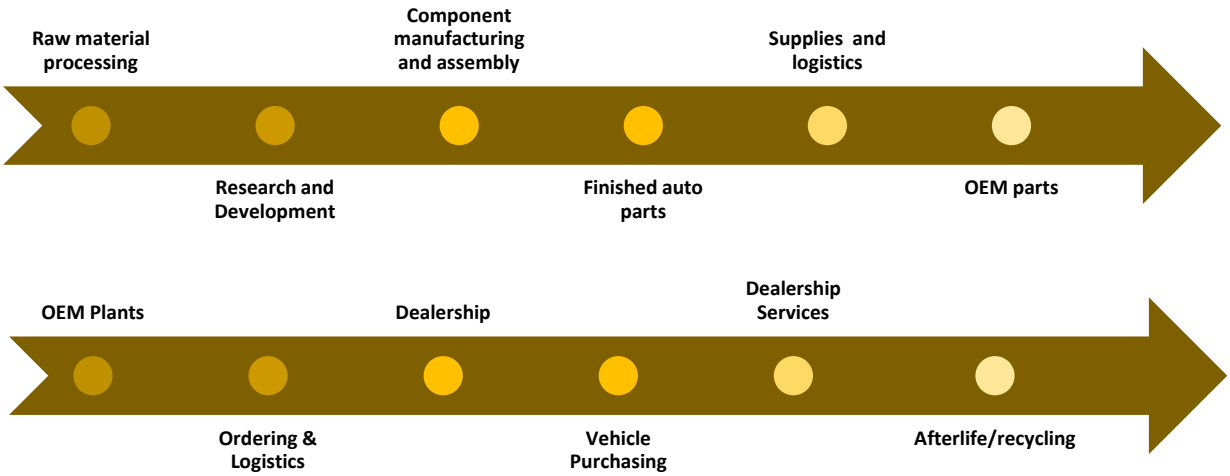


Motor Sector

The motor sector comprises auto component manufacturing as well as an after sales and services sector. The components manufacturers are companies that manufacture vehicle components, parts and equipment. This sector interlinks with the auto sector as it supplies components used in the assembly and manufacture of vehicles. The sector also interlinks to motor sales and service in that the manufactured 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.

Figure 6: Motor Sector Supply Chain (Source: merSETA Supply and Demand Study, 2018)



1.3 KEY ROLE PLAYERS

The industry is shaped primarily by government, industry, organised employers, labour unions and civil society. The key role players within the mer sector include industry bodies, employer associations, government departments and institutions that provide policy direction or play a regulatory role. In its role as an intermediary for skills development, the merSETA also recognises the importance of civil society as a key role player. All these role players has 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.

Table 2 below briefly identifies and describes the role of these players in industry.

Table 2: Key Regulatory Organisations in the merSETA Scope of Coverage

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 as well as address social issues.
	Department of Trade and Industry (DTI)	
	Department of Science and Technology (DST)	
	Department of Environmental Affairs (DEA)	
	Department of Planning, Monitoring & Evaluation	
	The Steel and Engineering Industries Federation of Southern Africa (SEIFSA)	Employer organisations represent members in collective bargaining, data and information gathering and skills development.
	Automobile Manufacturers Employers Organisation (AMEO)	

ORGANISATION TYPE	NAME OF ORGANISATION	ROLE
Employer Organisations	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.
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	
Labour Organisations	National Union of Metalworkers South Africa (NUMSA)	Unions play a significant role in advocating and fighting for worker's rights, skills development and improving conditions of employment and advocating for transformation among other things.
	Chemical Energy Paper Printing Wood and Allied workers Union (CEPPWAWU)	
	Metal and Electrical Workers Union of South Africa (MEWUSA)	
	Solidarity	
	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. With the inception of the NSDP, the SETA system will have to endeavour to put in place mechanisms to support communities through skills development, supporting local businesses and worker training, and making the community education system relevant for meaningful impact in terms of producing a skilled labour market and supporting entrepreneurship of various forms.

1.4 ECONOMIC PERFORMANCE

Overall, the South African economy has experienced marginal growth in the last 3 years. The first quarter of 2019 saw the GDP contract by 3.2%, this was mainly due to contraction in the manufacturing and mining sectors (StatsSA, 2019).

Overall, manufacturing contracted by 8.8% due to declines in petroleum, transport and wood and paper. The wholesale, retail and motor sectors also contributed to the decline by 3.6%, sending the South African trade sector into recession. The manufacturing sector contributes 13% to total GDP. The manufacturing sector comprises 26% f0od and beverages, 24% petroleum and chemical products, 19% basic iron and steel, 11% wood and paper products, 7% motor vehicles parts and accessories as depicted in the figure below.

Figure 7: GDP Percentage by Sector

South Africa is still facing structural economic challenges that need to be addressed towards a continued pursuit of better economic growth. Before the transition to President Cyril Ramaphosa's presidency, South Africa was battling with prolonged economic weakness, mainly as a result of domestic constraints that resulted in low levels of private investment, growing unemployment, and declining real per capita income in recent years (National Treasury, 2018). Also, while the new presidency has restored the country's sense of optimism, some inherent structural economic challenges still persist; these include dysfunctional state-owned enterprises, for instance, recent Eskom power cuts which affected production of various businesses, policy uncertainty and low business and consumer confidence(Sakeliga, 2019) and the mismatch between the demand and supply of skills (DTI, 2019).

The Rand Merchant Bank and the University of Stellenbosch Bureau of Economic Research (RMB/BER), (2019) claim that Business Confidence Index in South Africa fell 3 points to 28 in the first quarter of 2019, from 31 in the previous period. It is the weakest confidence level since Q2 2017 as deterioration was observed in four out of the five sectors: construction, retail, wholesale, manufacturing and new vehicle trade.

Developments in the global trading environment will be particularly important. South Africa has an open economy as indicated by the sizeable shares of GDP, at 29.8% and 28.4%

respectively, claimed by exports and imports in 2017 (IDC, 2018). Therefore, South Africa is strongly affected by global trade developments, directly and indirectly. Stronger demand from South Africa's key trading partners is anticipated to result in an improved export performance over the medium-term. Manufactured exports should benefit from increased demand in the Eurozone and Sub-Saharan African markets, among others, but may face significant challenges in the US market, as exemplified by the recently imposed tariffs on US imports of steel and aluminium (IDC, 2018). Uncertainty surrounding Brexit may affect exports and financial flows with one of South Africa's largest European trading partners. The implementation of economic reforms remains critical to facilitate faster growth and sustain the ongoing economic recovery (Focus Economics, 2018). Unemployment remains high, reflecting skill shortages and weak investment; inequalities in opportunities and incomes also remain high despite the introduction of the proposed new minimum wage (OECD, 2018). Reforms to ease the cost of doing business, boost entrepreneurship, lift competition barriers in many sectors and facilitate the expansion of firms in the neighbouring region would boost productivity and help create jobs (OECD, 2018).

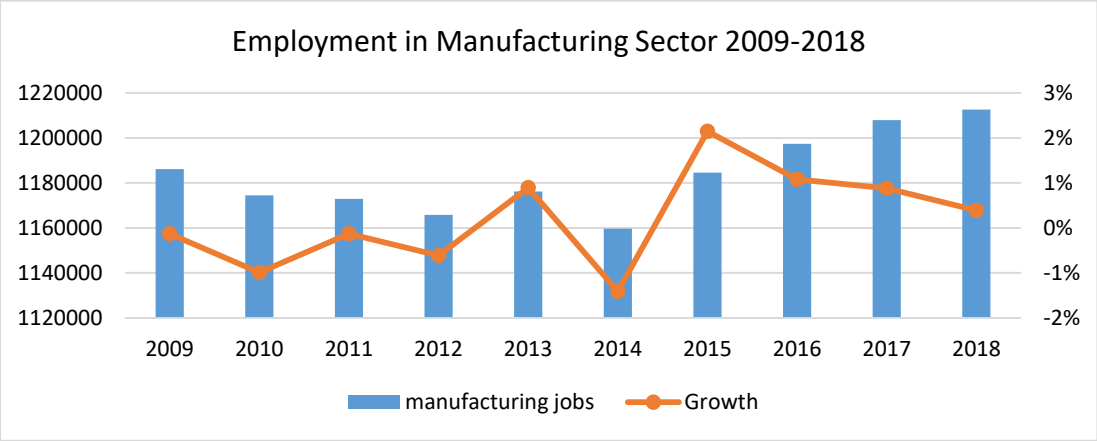
1.4.1 Manufacturing Employment and Earnings

The Quarterly Employment Statistics (QES) released by StatsSA is a firm based sample survey which examines employment and earnings from a sample of VAT registered, non-agricultural private businesses who have a turnover in excess of R300 000 per annum (StatsSA, 2019). In quarter 4 of 2018, the QES demonstrated that the manufacturing sector had gained an estimated 34 000 jobs. Employment seems to have grown across all sectors except the electricity sector and this has been attributed to small businesses growing to the extent that they are captured in the survey sample as well as greater compliance with business registration processes.[2]

According to the QES, 90% of those employed are full-time employees who work 40 hours per week, which means that workers are occupied in a full-time capacity; however, these include permanent, temporary and casual employees. According to the report, an additional 158 000 jobs were added to the economy between quarter 4 of 2017 and quarter 4 of 2018. Gross earnings increased in Q4 of 2018 due to salary increases, bonuses and overtime payments. Earnings in the manufacturing sector increased by 5.2% compared to the same quarter in 2017, average monthly earnings also improved by 4.8% (StatsSA, 2019).

[2] It should be noted that the QES does not account for informal businesses, cooperatives or unregistered businesses.

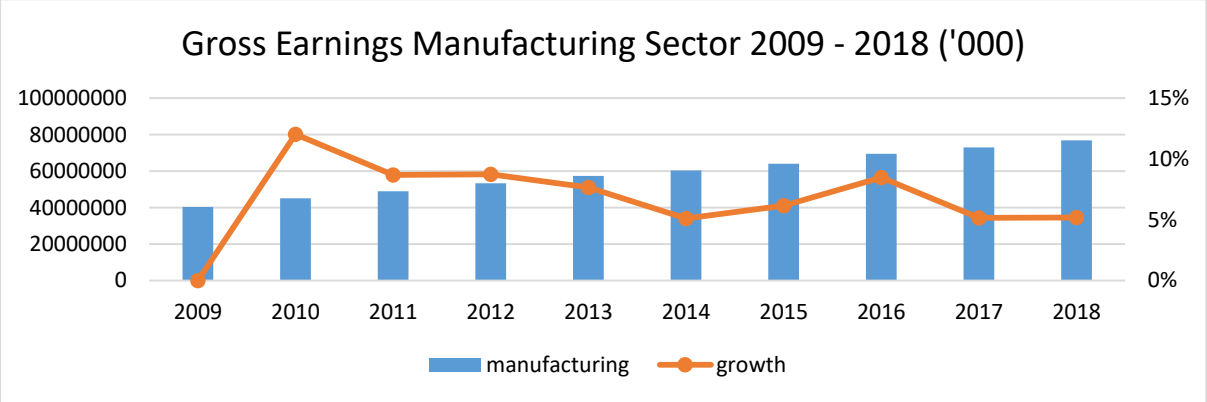
Figure 8: Employment in Manufacturing (QES, 2019)



Overall, the figure above shows that the number of people employed in the manufacturing sector has increased over time; however, the growth in the number of jobs has slowed since 2015. According to the QES, the manufacturing industry employs a total of just over 1 200 000 (one million, two hundered thousand) people who work in the formal sector. Sectors within the merSETA scope of coverage account for about 888 000 (eight hundred and eighty eight thousand) employees (73% of total manufacturing), the majority employed in motor sales and services sector (365 000)[3] and the metal sector (341 000), followed by the plastics sector (80 000), the motor components sector (60 500),the auto sector (32 000) and the new tyre sector (12 500)[4].

In terms of earnings, workers in the manufacturing sector total gross earnings were just under 76 billion rand (R76 bn) including bonus and overtime payments.

Figure 9: Manufacturing Earnings 2009-2018 (QES, 2019)



The figure above shows that earnings have increased year on year since 2014, however the growth in earnings has stagnated since 2017.

[3] Primary data from mer sector stakeholders will be analysed to ensure the correct figures are captured for the sectors before submission of the final SSP in August 2019. Data from MIBCO accounting for the motor sector puts total employment for that sector at 304 000 employees (QES accounts for employment at 425 000 for motor manufacturing and retail sectors)

[4] Breakdown of QES data by sector in Annexure 1

1.4.2 Economic Performance of Each Economic Sector

In the next sub-sections, we explore the economic performance of each the sectors[5] in the merSETA scope of coverage.

Automotive Sector

New vehicle sales have declined in first quarter of 2019, sales are down 7.4% to just under 42 500 vehicles sold (WesBank, 2019). Erratic fuel prices and inflation have had a negative impact on the domestic car sales market. In contrast however export sales have increased significantly.

In May 2019, NAAMSA reported that the South African auto manufacturers saw an upswing in sales in the 4th month of 2019, particularly in the export market which accounted for an additional 11 thousand vehicles exported which represent an increase of 54% compared to April 2018 when only 21 500 (twenty one thousand five hundred) were exported. Despite the overall sluggishness experienced in the rest of the economy, the auto sector is set for growth with government prioritising support for the sector through foreign investments and setting policy to increase local content to more than 50% (NAACAM, 2019). Policy certainty and economic support will drive the sector to a stronger foothold in terms of global competitiveness. These developments come as the South African government (through the DTI) has finalised the SA Automotive Master Plan (2035).

Last year, it was reported that Mercedes Benz was set to invest R10 billion to expand their plant in East London over the coming 5 years in preparation for the next C-class model. This year it was reported that Japanese vehicle manufacturer Nissan will invest R3 billion into its Rosslyn plant in Pretoria for the production of the new Navara pick-up (Engineering News, 2019). It plans to produce around 30 000 Navaras a year with about 50% being exported to markets in sub-Saharan Africa. This investment also secures about 400 new jobs for the OEM and another 800 jobs in the larger value chain (local components' manufacturers). It is reported that the local content of the Navara will start with 35%, rising to 48% in the short term. Nissan have already identified 15 black-owned companies to support this endeavour. Ford has also ramped up its export to Europe due to increased demand for the Ford Ranger (RMI Industry News, 2019). Ford invested R3 billion into its plant to meet export demand. In addition Ford is employing a multi-port strategy to produce efficiencies in terms of logistics. Ford Rangers which are produced in Silverton, Pretoria are transported to Port Elizabeth using freight rail infrastructure on the return trip from transporting vehicles from Port Elizabeth to Johannesburg, this makes shipping more cost effective. It further allows for the port to become a premier automotive hub for South Africa. These developments in the auto sector bode well for tier 1 and 2 components' manufacturers in the motor sector.

The Auto industry has been earmarked to ramp up the re-industrialisation of the South African economy. The skills development fraternity should therefore also ramp up its support to meet the skills demands for the sector in the short, medium and long term. In addition, the production capacity of South Africa should not undermine the efforts to ramp up

[5] We refer to mer sectors to represent the 5 chamber as these chambers are constituted of more than 1 SIC code barring the auto sector

industrialisation. This gives impetus to the reform of the power utility to produce a consistent power supply to accommodate additional shifts in production of vehicles (Engineering news, 2019).

Motor Retail and After Sales Services

According to the South African Retail Motor Industry Results and Prospectus Report, the industry has been in decline for the second half of 2018, the steepest decline since 2016. The domestic market has experienced a slump due to poor economic growth and low household income. The sector will need to see per capita GDP grow quite substantially to make a positive impact on sales, currently the population are not readily buying new cars.

Consumer woes due to rising fuel prices and the overall sluggish economy have increased over time. Those who opt to purchase motor vehicles are tending to buy used vehicles. In addition, the sector has seen a change in consumer behaviour with respect to vehicle maintenance –they tend to utilise informal workshops due to rising costs and this informal or home-based industry has been on a steady incline.

Between 2014 and 2018, the consumer has been spending more on fuel, opting for used vehicles and reducing their reliance on formal workshops for maintenance. Thriftiness of the consumer has made a real impact on the sector.

In terms of manufacturing, those who supply the OEM have not fared too badly however the manufacture of bodies, trailers and semi-trailers has seen a marked decline and no growth has been experienced by the parts and accessories sector until recent months which saw sales increase by 4% (economists.co.za, 2019). This may bode well for the sector especially due to governments' investment and support of the Automotive Master Plan.

Plastics Sector

The plastics sector has come under heavy criticism lately due to the negative effects waste plastics have had on the environment. The world seems to be advocating for a "life without plastics" (PlasticsSA, 2019). It is specifically single use plastic products that are seen as the major contributorto the negative environmental impact. Many countries have moved to banning plastic bags with Tanzania the latest African nation to implement this policy (News24, 2019). South Africa has also seen this culture being implemented in many of its major shopping malls opting for "plastic free" bags.

Plastics South Africa has intimated that the blame cannot lie with the plastics producer but rather that government should implement proper waste management strategies. In addition the sector has embraced the circular economy, producing products with a strategy for recycling, repurposing and upcycling (design for recycling). The sector body Plastics SA believes that working in partnership with government, producers andretailers, new technologies can be put in place to change behaviours and reduce the impact that plastics has had on the environment. This in turn also produces the opportunity to develop new skills for new opportunities in the sector. Efforts put in to the recycling campaign have seen South Africa surpass the recycling rate of Europe. These efforts have resulted in work for 58 100 workers comprising waste pickers, entrepreneurial collectors and other formal jobs (Plastics

SA, 2019). The sector has really rallied behind finding sustainable solutions to mitigate the problems and also promote the responsible use of plastics for the good of the economy.

While the sector has been focused on recycling, it has fared relatively well despite violent strike action over wages and benefits in recent months. The sector has grown at a steady 3 – 5% annually with a contribution of almost 15% to manufacturing GDP and almost 2% of national GDP (IPAP, 2018). The packaging sector makes the largest contribution to the sector.

Challenges experienced by the sector include the lack of advanced manufacturing practices and the slow technological upgrading, skills shortages and the lack of downstream focus on R&D efforts. As plastic waste management is a critical issue globally, the sector will have to innovate and adapt if it is to survive this negative wave (Engineering News, 2018b). This links to the newly emphasised "circular economy" which should become the plastics industry's new roadmap to sustainable growth (merSETA Supply and Demand Study, 2018). Previously sustainability growth was limited to recycling waste and its methods, however with a circular economy emphasis, the focus is on adapting products and processes before plastic even becomes waste.

Furthermore, the competitiveness of the local industry has been negatively impacted by factors such as the cost of polymers, proximity to markets, relatively small local and regional market, and electricity pricing as well as inland location of production facilities in the case of exports. The competitive landscape is also changing dramatically with international players establishing themselves in the South African market (as is evidenced by the disposal of Astrapak to RPC plc, Boxmore to Alpla, and Nampak Flexibles to Amcor and Afripack to Constantia Flexibles). Therefore, a number of local players are now looking to position and strengthen themselves as this situation is expected to continue.

Metals Sector

The metals sector is arguably the most well-developed and largest manufacturing sector in South Africa, representing roughly a third of the overall manufacturing of the country (DTI, 2019), and contributes close to 30% to the manufacturing GDP. In the recent years, the metals sector has experienced a constant decline largely due to challenges that include: high volatility in production, lack of new investment and poor fixed-capital stock, an increasing share of imported intermediate inputs, a high imports-domestic demand ratio and high dependency on exports, as well as high interdependence with the mining, construction and automotive industries (SEIFSA, 2019).

According to Engineering News (2019), global crude steel production for the first quarter of this 2019 increased by 4.5% year-on-year to 444.1-million tonnes, global industry body. South Africa produced an estimated 540 000 tons of steel during March 2019, an increase of 3.1% compared with March 2018.

While still experiencing an overall downturn, the sector experienced a better year in 2018 recording a growth rate of 2%. The sector is dependent on the growth of the mining, automotive and construction sectors for domestic growth, these sectors themselves have experienced challenges however with impetus on the automotive sector in the last few months, this should garner positive gains for the metals sector.

Internationally, the sector is still on shaky ground as the global economy has slowed to a growth of 3% (SEIFSA, 2019), of note is the slowdown in China which represents more than 50% of the worldwide demand for metals as well as the trade tensions with the US. Overall, the climate has resulted in reduced competitiveness and a loss of international and domestic share (SEIFSA, 2019).

On the policy front, it has been recommended that policy makers support initiatives aimed at improved competitiveness, reducing logistical and electricity constraints to support production and export to regional markets. Overall SEIFSA predicts a moderate 1.8% growth for the sector in 2019.

New Tyre Sector

The new tyre industry in South Africa benefits from South Africa's well developed automotive sector. According to data from SATMC, in 2015 11 million new tyres were sold locally, accounting for 61% of sales (SATMC, 2017). Although the industry has the capacity to manufacture 18 million tyres per annum, only 11 million tyres are manufactured locally, while 2 million locally manufactured tyres are exported mainly to SADC countries (African Business Information, 2017). The sector has over the past few years been stimulated by a R4-billion collective investment injection toward enhancing tyre production facilities (African Business Information, 2017).

In October 2018, Sumitomo Rubber South Africa officially launched its new, state-of-the-art Truck and Bus Radial (TBR) factory in Ladysmith, KwaZulu-Natal after injection of R970 million to introduce and manufacture truck and bus tyres locally (Engineering News, 2018). According to the IDC (2019) sector trends report, tyre and rubber production and sales declined by 2.6 percent in the last quarter of 2018, while capacity utilisation grew by 2 percent. This is largely due to the challenges facing the tyre industry in South Africa which includes a stiff global competition from approximately 200 importers of various tyre brands and an influx of cheaper tyres coming from countries in the Far East. The South African tyre safety rules and regulation is argued to contribute to the industry challenges by allowing the selling of unsafe new and used tyres to the public and the unregulated importation of such tyres (Wheels24, 2018).

Tyre and rubber products accounted for a total of 15 521.68 million imports in 2018, while the export product was 5 913.59 million during the same year. The South African tyre industry has established a good network of trading partners in Africa for exports, particularly in the SADC countries. However, the value of exports and imports is marginally low in Africa when compared to countries outside of Africa, with the highest source of import share and import value coming from China.

Furthermore, South Africa's leading tyre companies are making significant efforts to make more investments in the tyre industries. In October 2018, Senzo Zikalala (KZN MEC for Economic Development and Environmental Affairs) officially opened a R2.1 billion investment of a plant upgrade of the world's class bus and truck tyre manufacturing facility in Ladysmith which is led by Sumitomo Rubber (South African Government, 2018).

1.5 EMPLOYER PROFILE

WSP data collected up to the end of May 2019 yielded 5350 companies. These include levy exempt companies, but exclude entities that operate as training providers, non-profit organisations, universities and TVET colleges and other training providers. The sample therefore represents a majority of levy paying employers who operate in the mer sectors as manufacturers, retailers and service providers. For the purposes of this analysis the WSP data will remove companies that are classified as "Other" as these tend to be skills development partners such as training providers, civil organisations and government departments. Therefore, the total sample we will work with comprises 5231 companies representing 538 432 employees. Where possible, companies have been manually assigned into the appropriate chamber based on their main business activity. This number has increased since the last SSP update, in 2018 data were analysed for 4469 companies, and 794 000 employees (in the 2019 analyses we have removed workers who were classified as "unemployed", "no longer at the company" and "\N"). The higher number of companies as well as the substantial number of "unknown chamber" companies suggests that new firms have submitted data to the merSETA.

In terms of the size of companies in the merSETA sector, most are small and medium, when combined they employ 33% of all employees whilst large companies account for around 67% of employment.

Table 3: merSETA Companies by Size(merSETA WSP, 2019)

COMPANY SIZE	NO. COMPANIES	% SHARE COMPANIES	EMPLOYMENT	% SHARE EMPLOYMENT
Large (150+)	634	11.85%	367869	67.28%
Medium(50-149)	1219	22.79%	103682	18.96%
Small (<50)	3497	65.36%	75252	13.76%
Grand Total	**5350**	**100.00%**	**546803**	**100.00%**

The table below shows the composition of the mer sectors in terms of number and size of company as well as number of employees. Of all the merSETA sectors (barring the unknown[6] chamber), the metal sector shows the greatest share of employment at 50%, followed by motor at 29%.

Table 4: merSETA Companies by Size and Chamber (merSETA WSP, 2019)

Chamber	Size of company	no. of companies	% companies	no. of employees	% employees
Auto	large	8	0.15%	22886	4.25%
	medium	2	0.04%	169	0.03%
Auto Total		**10**	**0.19%**	**23055**	**4.28%**
Metal	large	314	6.00%	183940	34.16%
	medium	572	10.93%	49143	9.13%
	small	1454	27.80%	34030	6.32%
Metal Total		**2340**	**44.73%**	**267113**	**49.61%**
Motor	large	172	3.29%	101778	18.90%
	medium	354	6.77%	29481	5.48%

[6] Unknown chamber refers to companies that did not have a SIC code and could not be manually assigned to a chamber based on its name or business activity.

	small	1204	23.02%	26045	4.84%
Motor Total		**1730**	**33.07%**	**157304**	**29.22%**
New Tyre	large	6	0.11%	5639	1.05%
	medium	2	0.04%	184	0.03%
	small	5	0.10%	114	0.02%
New Tyre Total		**13**	**0.25%**	**5937**	**1.10%**
Plastics	Large	78	1.49%	27196	5.05%
	medium	140	2.68%	12171	2.26%
	small	175	3.35%	4843	0.90%
Plastics Total		**393**	**7.51%**	**44210**	**8.21%**
Unknown	large	50	0.96%	19431	3.61%
	medium	144	2.75%	12105	2.25%
	small	551	10.53%	9277	1.72%
Unknown Total		**745**	**14.24%**	**40813**	**7.58%**
Grand Total		**5231**	**100.00%**	**538432**	**100.00%**

1.5.1 Informality in the Mer Sectors

The merSETA conducted a supply and demand study in 2018 which looked at the skills needed within each of the sectors and in each of the provinces. It also examined informal businesses and sought to understand, explore, and document key features, challenges, and skills needs in the informal economy with a view to identify opportunities for skills development that will support informal businesses within the merSETA affiliated sub-sectors. The study aimed to provide an understanding of the nature of informal businesses in the mer sector and assess the nature and character of labour and skills in the sector.

The table below documents the respondents in the study:

Table 5 Field Survey Respondents (Informal Sector)

Chamber	Gauteng	Limpopo	Mpumalanga	North West	Total
Metals	24	19	9	21	73
Motor	46	12	18	49	125
Plastics	31	16	2		49
Tyre	13	5	6		24
Total	**114**	**52**	**35**	**70**	**271**

This study is of importance to the merSETA as it seeks to understand and explore all workplaces under its scope of coverage. In line with the outcomes of the NSDP, it also supports the need to develop skills within communities and also in line with strategies to develop the economies of township and rural areas as well as IPAP, albeit at a smaller scale.
From the 271 respondents interviewed across the four provinces as outlined in the figure above, the highest number of respondents was based in the Gauteng province (42%). The North West accounted for 26% of the respondents, 19% was based in Limpopo and 13% in Mpumalanga.

When examining informal entrepreneurs' motives, it became increasingly common to differentiate between 'necessity' entrepreneurs pushed into entrepreneurship because other choices are absent or unsatisfactory and 'opportunity' entrepreneurs doing so out of choice

(Williams, 2014). In the South African context where there is high unemployment and poverty it is even more vital to understand the motivations for starting an informal enterprise.

The respondents were asked to indicate how they got into business they were operating and 35% indicated that it was through a social connection. In other words, they were taught or introduced to their informal business through family (14%) or through neighbours and other acquaintances (21%). The majority of their clients are their neighbours and people in the close vicinity of their business. The remaining 63% who started their venture through the initiative of their own provided varied reasons for starting the venture:

- 12% started after gaining work experience
- 5% started after studying a related subject
- 9% were passionate about the trade
- 39% self-motivated or saw a market gap

Overall, the enquiry into the informal sector found that, for merSETA to support training in the informal sector, a strategy should be developed with clear activities and outcomes. This is important from the point of view of providing support to these enterprises that they identified and approached. The following are recommended:

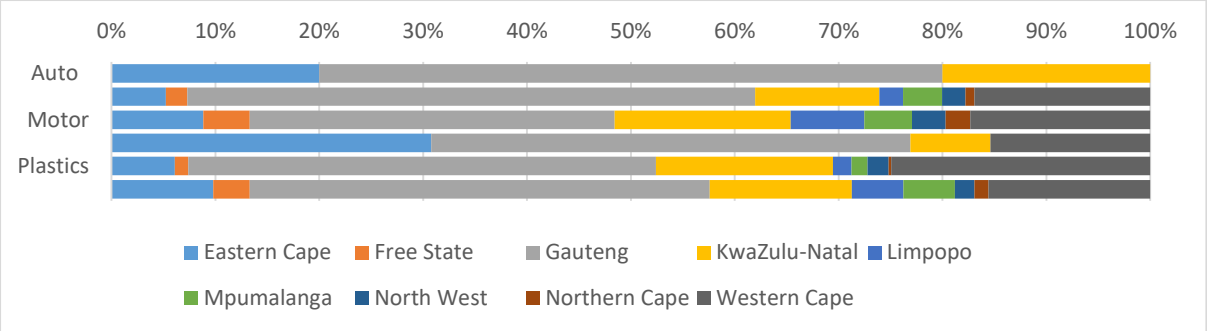
- The informal businesses need more than just training, they require access to information and to do this the merSETA will have to work with other agencies of the state to provide support. An ecosystem approach is needed whereby support that is provided includes access finance, access to operational efficiency support, access to markets and entering value chains and access to training.
- A start could be made through learning from existing programmes developed by the SETA, the SEIFSA, the Department of Small Business Development, the DTI and other programmes which seeks to empower and upskill informal businesses in the mer sector.
- Because they largely do not know merSETA, there will have to be creative ways of approaching them and providing the requisite support. A visibility drive needs to be conducted by the SETA so that informal business owners can get to know the SETA and its functions. However, in order to achieve this, there is a need for a holistic approach focussing on how the merSETA builds internal capacity to respond to the needs of the informal sector.
- It has become apparent that many of the informal sector respondents had received some form of training in TVET colleges. Does this point to the need to explore partnerships with TVET colleges and emerging Community colleges to put in place locally accessible programmes targeted at the informal sector?
- The other interesting issue was the existence of people with degrees in the informal sector and the emphasis on local networks to learn and share information. Does this point to the need for some kind of bottom up community development approach? For example, should the merSETA consider a partnership with community based organisations that will help facilitate access to training as well as other assistance?
- In future, there should be studies that look into how the graduates from Universities of Technology are supported to start innovative projects and to get into existing value chains.
- It has been highlighted that the hours of operations are varied, ranging from a few hours a day to those operating 24 hours a day. Any form of support would have to be

tailored to their specific operational needs. It might be easier for those operating less hours in a day or few days a week as compared to those working longer hours and seven days a week.

1.5.2 Provincial Distribution of merSETA Companies

In terms of the provincial distribution of the companies within the merSETA five Chambers as seen in Figure 9, most are concentrated in Gauteng, the Western Cape, KwaZulu-Natal and the Eastern Cape. The metal sector also has a footprint in the Northern Cape and Mpumalanga. The motor sector shows a footprint in all other provinces as do the other sectors, but to a lesser degree.

Figure 10: merSETA Companies by Chamber and Province (merSETA WSP, 2019)



1.6 LABOUR MARKET PROFILE

Data submitted to the merSETA in WSPs by 5231 companies represents the majority of employees in the mer sector. If we compare the QES data which represents 888 000 employees[7]reported in the mer scope of coverage and 1 212 000 employees for the total manufacturing sector, the mer sectors account for 73% of total manufacturing employment (QES data, own calculations).

In total, the WSP data accounts for about 540 000 employees with 67% of workers working in large companies and 19% working in medium-sized companies, small companies only account for 13% of total employment as per the 2019 WSP data.[8] The statistics based on the WSP data are therefore representative of the designated companies who participate in the merSETA mandatory grant process.

1.6.1 Provincial Distribution of Employees

The geographical distribution of employees is likely to follow the geographical distribution of the sector as a whole, with employment concentrated in Gauteng, KwaZulu-Natal, the Western Cape and Eastern Cape. When considering the more rural regions, there are higher concentrations of employment in the motor retail, motor service and repairs, and metal

[7] This is based on our own calculations using the QES 2019 DATA produced by StatsSA (we isolated the mer sic codes) – this data set is a firm survey based on 20 000 vat registered companies which should yield more accurate data for the merSETA because we have a majority of large firms and firms with a turnover of more than R300 000. Previously, we used the QLFS data to report employment however this is a household survey based on 30 000 households. The QES also excludes agricultural sectors and informal sectors.

[8] While the validity and reliability of the reported data in the WSP is viewed by some with speculation, this data set is by far the most detailed sector based data available to the labour market.

fabrication sub-sectors than in the other merSETA sub-sectors. The table below reflects this scenario.

Table 6: merSETA Provincial Distribution of Employees(WSP data, 2019)

Province	Total Employed	Total Employed %
Gauteng	312032	57.95%
KwaZulu-Natal	74208	13.78%
Western Cape	57834	10.74%
Eastern Cape	42065	7.81%
Mpumalanga	16439	3.05%
Limpopo	15555	2.89%
Free State	9776	1.82%
North West	7680	1.43%
Northern Cape	2843	0.53%
Grand Total	**538432**	**100.00%**

1.6.2 Workforce by Occupational Category and Chamber

The majority of employees in the mer sector are trades workers or operators (40%), and significantly 19% find themselves in elementary occupations. In the new tyre and plastics sectors, just short of 60% of workers are at this level. The auto sector employs the highest proportion of workers at technician level (24%) with only 1% of their workforce being elementary workers. The new tyre sector also have relatively few elementary workers at only 5%. Plastics has the largest proportion on elementary workers with 25% being elementary workers.

Table 7: Occupational Categories of employees by Chamber (merSETA WSP, 2019)

OFO Group	Auto	Metal	Motor	New Tyre	Plastics	Un-known	Grand Total
Managers	8%	9%	11%	10%	8%	11%	9%
Professionals	7%	6%	5%	5%	4%	7%	6%
Technicians and Associate Professionals	24%	12%	8%	11%	8%	12%	11%
Clerical Support Workers	5%	9%	13%	5%	8%	9%	10%
Service and Sales Workers	4%	3%	12%	2%	3%	4%	6%
Skilled Agricultural Forestry Fishery Craft and Related Trades Workers	10%	22%	18%	7%	12%	22%	20%
Plant and Machine Operators and Assemblers	40%	19%	15%	54%	32%	20%	20%
Elementary Occupations	1%	21%	18%	5%	25%	16%	19%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

1.6.3 Educational Profile

There is no detailed information available on the skills levels of employees from merSETA WSP data. However, the QLFS Q4 2017[9] data from StatsSA were utilised to establish a proxy measure for educational levels of merSETA sector employees. According to 2017 Q4 QLFS data (see Figure 12 and Table 7), the majority of employees have an NQF level 4 (45%), but overall 74% of employees have FET band qualifications with 7% having qualifications higher than FET level. This has increased by 4% which may indicate efforts to improve throughput rates at HEIs, this will be explored in greater depth in chapter three of this report. A

[9] This data will be updated with the latest statistics for the final SSP submission.

substantial 14% of employees only have general education which presents an opportunity for upskilling through the community colleges, an area that requires greater efforts going forward.

The data also shows that women tend to be less represented above NQF 4; however, from the data, it would seem that women who do progress beyond NQF 4 predominately attain NQF 6 (Table 7). Overall, a higher proportion of women (62%) reach NQF 4 as opposed men (47%).

Table 8: Educational Levels of Employers in merSETA Scope of Coverage (merSETA calculations- StatsSA, 2018)

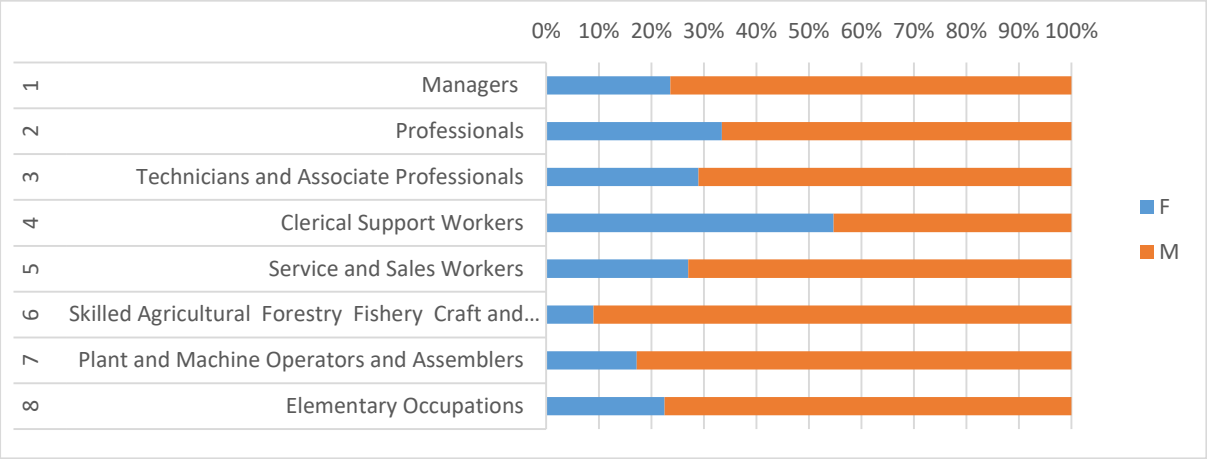
NQF LEVEL	GENDER				TOTAL	
	MALE		FEMALE			
less than level 1	11871	1%	2792	2%	8668	2%
NQF 1	132809	16%	13204	8%	175002	10%
NQF 2	108955	13%	12948	7%	167270	10%
NQF 3	110414	13%	20406	12%	176573	27%
NQF 4	391570	47%	108734	62%	603576	45%
NQF 5	13099	2%		0%	12489	0%
NQF 6	41517	5%	17157	10%	10679	1%
NQF 7	3096	0%		0%	45549	2%
NQF 8	8261	1%	50	0%	7643	1%
NQF 9	4209	1%		0%	16913	2%
DK	2287	0%		0%	5849	1%
Total	**839892**		**175291**		**1015183**	

1.6.4 Race and Gender Distribution of Employees

Race and gender are important indicators of transformation in the sector. The mer sectors are male dominated with 77% males and 23% females representing the gender profile of the sector. In most sectors, the representation of women is less than 25%; however, the plastics and motor sector employ 29% and 27% of women respectively.

When considering the gender split in terms of occupational category, clerical support workers is the only occupational category in which women dominate. The proportion of female workers in managerial positions remain relatively low at just over 23%; however, in terms of professionals, women represent 33% of employees (improving by 1 percentage point since last year), women are least represented in the skilled trades (9%).

Figure 11: Gender Distribution of Employees According to Occupational Groups (merSETA WSP, 2019)



In terms of race, the sector does not reflect the demographics of the country in which Black Africans represent 77% of the population, Whites, 9% and Black Coloured, 9% and Black Indian/Asian representing less than 3%. In the merSETA data, a total of 60% (previously 58%) of merSETA employees are Black African, more than a fifth (22%) are white (previously 24%). Black Indians/Asians constitute 5%, while Black Coloureds constitute 13%. The sector thus demonstrates overrepresentation of White people with Black people underrepresented.

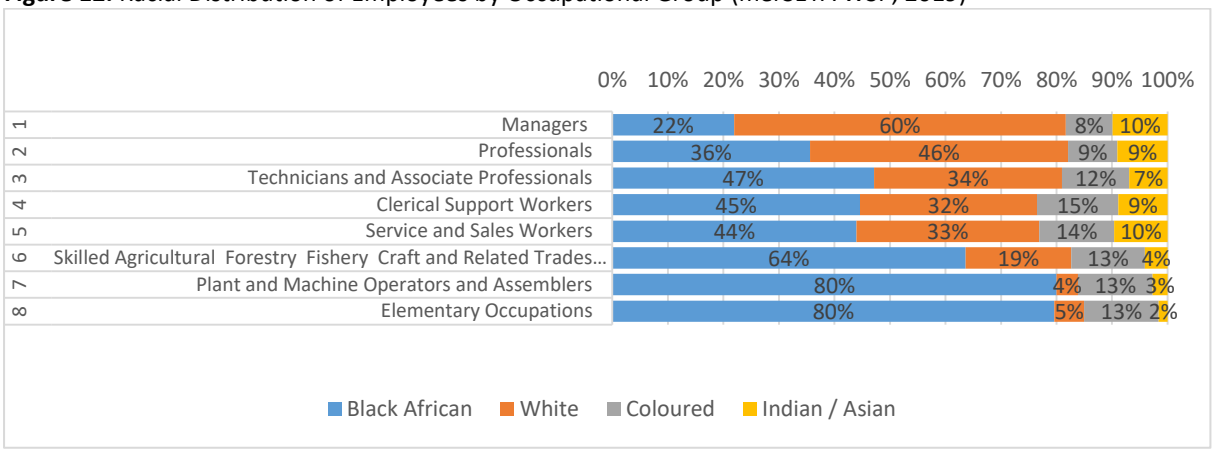
Table 9: Race Distribution of merSETA Employees (merSETA WSP, 2019)[10]

RACE	FREQUENCY	%
Black African	320085	60%
White	120628	22%
Black Coloured	67892	13%
Black Indian / Asian	28237	5%
Grand Total	**536842**	**100%**

The data as reflected in Figure 11 below, also reveals that transformation in the sector is slow with Black racial groups still occupying lower occupational categories. White employees form the largest racial group in the occupational categories of managers (60%, this was 63% in 2018, 66% in 2017 and 67% in 2012 which shows slow transformation). For professionals, the data show Black racial groups combined (i.e. inclusive of Coloured and Indian/Asian) make up 54% of the sample (49% in 2018, 53% in 2017 and 57% in 2012 which shows some improvement with respect to transformation). Black African employees make up the majority of workers for technician and associate professionals at 66% (47% in 2018), service and sales workers show 67% and clerical support workers at 68%. Overall, there is somewhat of an improvement in the representation of Black Africans workers at higher occupational levels, but much still needs to be done to see greater improvements.

[10] Races groups of "other" and "unknown" were present in the data and combined, they represented less than 1% of the total and have therefore been removed

Figure 12: Racial Distribution of Employees by Occupational Group (merSETA WSP, 2019)

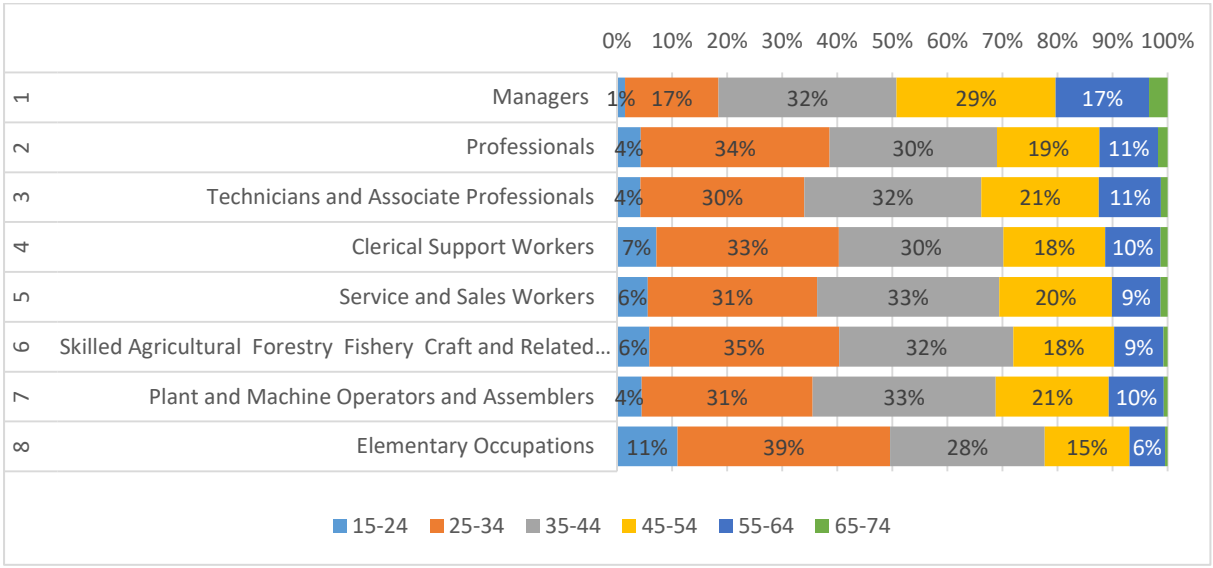


1.6.5 Age Distribution of Employees

Most workers in the sector are youth aged 15-34, making up 38% of the sample with those aged 35-44 comprising 31% and those older than 44 making up 31%.

Elementary occupations have a relatively large proportion of workers younger than 35 years (50%). The highest proportion of those at managerial or professional level, are aged over 35. This is due to the positive correlation between age, skill and experience. It is important to note that 20% of managers are older than 55 years and 30% of professionals are older than 45 years. These workers will exit the sector in the next 5 to 20 years due to retirement, younger workers must be in the pipeline to take up these positions quickly, coupled with the onset of 4IR, interventions are required to ensure the leaders of tomorrow are adequately skilled. There is a need for succession planning as well as upskilling to allow the youth to transition into leadership roles.

Figure 13: Age and Occupational Group of Employees (merSETA WSP, 2019)



1.6.6 Disability

According to merSETA WSP data, merSETA organisations employ approximately 5911 disabled people which represents only 1% of employees.

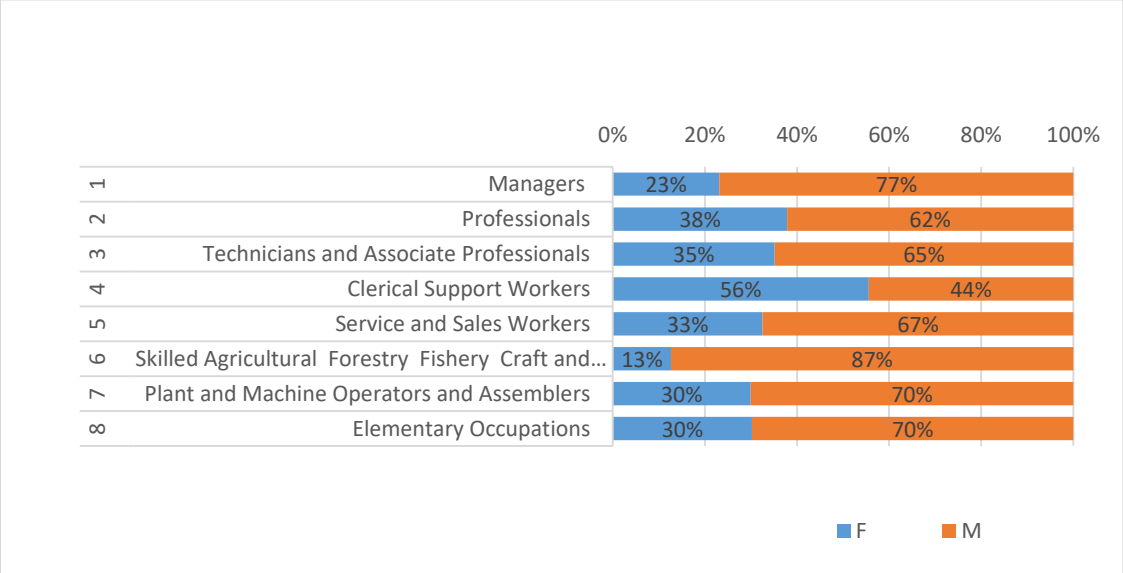
In terms of type of disability, the majority are unspecified disabilities (43%) followed by physical and sight (including the need for spectacles) disability.

Table 10: Employees with Disabilities by Type of disability (merSETA WSP, 2019)

Disability type	No. Employees	%
Disabled but unspecified	2555	43.22%
Physical (move/stand etc.)	1048	17.73%
Sight (incl. use of spectacles)	654	11.06%
Hearing	552	9.34%
Multiple	281	4.75%
Intellectual (learn etc.)	223	3.77%
Emotional (behav/psych)	188	3.18%
Walking	157	2.66%
Self Care	149	2.52%
Communication (talk/listen)	85	1.44%
Remembering	19	0.32%
Total	**5911**	**100.00%**

More males with disability are employed in the sector (66%); however, the proportion of females with disabilities is higher (33%) than that of able bodied female workers. Similar to their able bodied counterparts, these women tend to be employed in clerical positions (56%). The majority of males with disability are artisans (craft and related trades workers) as seen in Figure 13 below.

Figure 14: Occupational Categories and Gender of Employees with Disabilities (merSETA WSP, 2019)



The merSETA concluded a project evaluating its disability project which was aimed at providing skills to disabled individuals in the mer sectors. The project found that there are key challenges for persons with disabilities that ultimately results in high dropout rates and low

completion of programmes. The project highlighted the fact that in order to support skills development of persons with disabilities, the merSETA must consider more than just the disability, the SETA approach should be more than just a numbers game aimed at training as many as possible so that as many as possible can become employed. Instead the approach should aim to provide quality interventions suited to the needs of the individuals participating in the programmes. The individual approach is needed in which the following are considered:

- The impairment/disability (medical model)
- Socioeconomic factors that act as barriers to individual development
- The individuals career or work aspirations (motivation)
- A support structure in the form of family and friends
- The ability to train with others who also have disabilities

The study recommended the following which should improve skills attainment and absorption into the labour market:

- Develop Organisational Capacity
    - There is a need for inclusivity and awareness across the organisation to be able to know the meaning of being disabled
    - Raise regional awareness in order to promote inclusivity and awareness among partners
    - Provide expertise to the organisation to guide implementation of projects
- Build awareness
    - The qualities of a disabled person are not the same as an abled bodied person, often these individuals have come from an impoverished background without access to a high quality education and challenges when confronted with conventional classroom dynamics
    - Skills interventions should build in additional support structures to cater to unique challenges and foster inclusive learning while at the same time the curriculum should be aligned to the NQF, a toolkit is recommended in this regard
- Build a community of practice
    - To support development of the disability project with implementing partners

1.7 CONCLUSION

Key points to consider for skills development:

- Sectors are under strain to compete locally and internationally
    - In line with the NDP, NSDP and most government strategies, it is key to concentrate on localisation and develop policies to improve the prospects of medium and small businesses. Similar to the Automotive Master Plan, support in terms of incubation hubs and bringing smaller components manufacturers up to par with international standards is key.
    - 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, particularly in Africa.

- Overall, employment in manufacturing is dwindling – need to ensure that workers are able to retain their jobs and for those who are not in formal employment – 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. The merSETA is currently studying the needs of youth who already try to make a living in the informal sector.

- Majority of employees work for large companies however the number of medium and small companies is rising. The merSETA must ensure that skills are adequate for entrepreneurship to spur employment growth in medium and small companies.

- The economic overview demonstrated an undertone of the effects of new technologies and changing business practices as key drivers. It is essential that even workers in large companies should be able to remain viable in the market through lifelong learning. Concerning is the fact that a significant number of workers in the sector operate at elementary and operator levels, particularly those aged 25-34; this group presents a viable cohort of further skills development in light of the needs of 4IR.

- The lack of transformation is evident in the labour profile; more opportunities are needed for Black and female workers. Female workers, in particular, already demonstrate a substantial proportion of skilled workers but more can be done to ensure greater representation at managerial and professional levels. A key for merSETA is to ensure that we produce more female artisans who currently comprise only 9% of the artisanal workforce.

- The sector profile should start to be representative of the South African population, greater emphasis is needed to support the transition of Black workers into the skilled, professional and managerial labour cohort. This is also a key strategy for creating a pipeline for entrepreneurs who often need the skills, industry, professional and managerial experiences to successfully run their business.

- Greater effort is required to improve the rates of employment for the disabled, currently they represent less than 2% of the workforce. In line with the findings from the evaluation study, the merSETA should work across the five (or six) chambers, breaking through the barriers of a disabling environment, (1) through applying an approach of organisational development within the merSETA and of its partners, (2) through the inputs for the services i.e. the skills programme, the learnerships and the apprenticeship and (3) through raising awareness and advocating for the inclusion of persons with disabilities. Through this three-track approach, the merSETA Disability Project is achieving positive outcomes for learners with disabilities and merSETA partners which leads to a significant impact on a transformed inclusive labour market with a skilled workforce including persons with disabilities.

2. KEY SKILLS CHANGE DRIVERS

2.1 INTRODUCTION

This chapter identifies factors that are driving change in the sector and influencing skills demand and supply either positively or negatively. The chapter will identify and analyse skills issues such as technological innovation, global and economic environment, and government policies and strategies that influence considerations of skills supply and demand in the mer sectors.

2.2 FACTORS AFFECTING SKILLS DEMAND AND SUPPLY

The merSETA has embarked on a number of primary research projects to inform skills planning. Key drivers in industry, challenges and recommendations that inform this section of the report are drawn from stakeholder interviews conducted in 2018, skills supply and demand study from 2018, the motor chamber report on skills for the future, the plastics chamber research reports and draft report of research currently under way which include the green skills study, the project developing an occupational atlas of jobs that are relevant now and how jobs will change in the future.

Automotive Sector:

The automotive sector continues to contribute positively to the economy with one third of value addition within the domestic manufacturing sector deriving either directly or indirectly from the vehicle assembly (auto sector) and automotive component manufacturing (motor) sector. These sectors are important for the overall reindustrialisation of South Africa. The sector does have its challenges in terms of preserving labour intensity against the backdrop of slowed and even negative growth in certain sectors and overall economic sluggishness. To this end government has formalised the South African Automotive Master Plan to 2035 (Dti, 2018).

The report on the sector developed by B&M analysts suggest that South Africas' position as a global player has remained relatively stable over the recent past; however, there is no guarantee that this will prevail in the longer term. The conundrum faced by South Africa is the fact that the domestic market is small and the operations required to service an international market required major investment and ramp up to compete with players such as Malaysia, Argentina and Hungary. So while the sector is of key importance for the national economy, internationally it is barely making a dent. Key forces driving this sector through the Master Plan include the following:

- Grow vehicle production to 1% of global output
- Increase local content of assembled vehicles to 60% and transform the value chain
- Double employment in the value chain
- Improve competitiveness levels
- Improve value addition through the value chain

From a skills development perspective, much is to be done to keep pace with technology. A roadmap is required to develop skills to produce energy efficient vehicles (EEVs), moreover, consumers are ever more discerning and therefore require vehicles that are safer, more efficient and respond to their demands in terms of infotainment. So components suppliers will have to improve their operations to meet the demands of active and passive safety technologies, material composites, infotainment technologies, the increasing use of nanotechnology, additive manufacturing, and product recycling all likely to feature as critical technology developments over the period to 2035 (B&M Analysts, 2018). All the mer sectors have a role to play in this regard.

Motor Sector

Similar to the auto sector, the motor sector will have to keep pace in terms of the technological demands for motor vehicle components and aftersales service and maintenance. In a research study completed by the Motor Chamber (B&M Analysts, 2018) the following disrupters were identified:

Table 11 Motor Chamber Drivers

Change Driver	Skills Implications
1. Alternative engine technologies	Move to Plug-in hybrid electric vehicles (PHEVs), then battery electric vehicles (BEVs), as battery costs plummet and environmental regulations tighten. Simultaneous move to high technology, smaller displacement internal combustion engines (ICEs). Requires electrical engineering and mechatronic skills. For maintenance aftermarket services will be needed.
2. Green manufacturing	Regulatory and consumer demand for carbon-neutral production processes, recycled material and reduced emissions. What are the compliance cost implications? Will require regulatory compliance knowledge and enforcement capabilities.
3. New materials design	Development of composites, embedded nano-technology, and durable, light materials to reduce the weight of vehicles (resulting in improved emissions and fuel economy). Advanced materials engineering knowledge will be required. Research and development capabilities (university-level)
4. Infotainment and vehicle connectivity developments (IoT)	Internet and satellite connectivity leading to improved in-vehicle entertainment and navigation capabilities. Electronics, Advanced ICT skills, e.g. network design, programming.
5. Robotics and artificial intelligence	Rise of machine learning, big data and robotics will lead to product and process improvements. Ability to programme, maintain, and work alongside machines (e.g. use of “Cobots”). Data analysis skills. Disruptive effects from automation.
6. Passive and active vehicle safety advances	Introduction of new safety features will reduce collisions and road casualties but lead to a bifurcation of consumer markets as costs rise.

Change Driver	Skills Implications
	Familiarity with safety standards. Greater vehicle maintenance and repair skills.
7. Mobility services and autonomous vehicles	Alternative transport solutions (e.g. autonomous fleets of on-demand EVs) have the potential to displace private vehicle ownership. Potential for mass redundancy and skills migration.

New Tyre Sector

Comprising only 4 large, multinational manufacturing firms, this sector has experienced challenges with respect to the global value chain too. Similar to the automotive sectors, the New Tyre sector is also experiencing drivers with respect to technological advancements. As reported in an article by BizCommunity, Bridgestone reported that many unskilled jobs are at risk in the sector but that the implications of 4IR also reflect that there will be new jobs created for a new generation of workers particularly with respect to robotics and artificial intelligence. As the automotive sector advances, the New Tyre sector must keep pace with producing tyres to meet the demands of new vehicle and conditions such as the low rolling resistance tyres, requiring less energy to roll for fuel efficiency. The sector must also keep pace with the demands of heavy duty vehicles and the influence of the green economy to seek efficiencies with respect to the servicing tyres rather than replacing them (BizCommunity, 2018).

To keep pace with the demands of technologically driven environment, the sector recognising that traditional training will not suffice. Bridgestone is piloting an approach to upskill its people in this regard, transitioning them to new type of job.

Metal Sector:

A key driver for the metals sector is to determine how it can once again occupy a bigger role in contributing to the national economy. Given the tribulations of the sector in the recent past, SEIFSA have emphasised a real need to transition skills to meet the needs of a changing environment (Engineering News, 2019), reportedly, “South Africa’s national shortage of skills in all economic sectors exacerbates the challenges associated with the retention of staff and increases the demands for training and development within metals and engineering”. According to primary research conducted by the merSETA, the following are some of the change drivers and opportunities in the industry.

Table 12 Metal Sector Change Drivers

Change Driver	Skill Implications
Automation & Technology	The use of automated machinery and new technology requires an adjustment to the skills make-up
High Input Costs	High input costs place smaller employers under pressure and limit their ability to be price competitive
Production Innovation	The impact that product innovation has on required skills in the sector call for a higher level of skill

Tariffs and Imports	A lack of protection from cheaper imports in the form of tariffs may require more efficient manufacturing processes and the required skills

The metals sector experienced some serious challenges which have led to shedding of jobs. Larger employers have tended to automate and increasingly employed the use of technology in their operations. The capital-intensive nature of production has had a negative impact on employment, even though certain occupations have become a necessity. Large companies, such as MacSteel, have closed branches and 2015 saw Highveld Steel in Mpumalanga go into business rescue and retrench 2000 jobs (Faku, 2017). Aveng Trident Steel also gave notice to NUMSA for lay-off of 733 staff late in 2017. Furthermore, in 2017, Arcelor Mittal closed unprofitable plants and went into a Section 189 process. Though instead of retrenching people they were moved into other production areas; however, external recruitment was stopped.

The increasing input cost of materials (especially after Arcelor Mittal approached the Dti for customs protection from imports from Asia), the escalating price of electricity and fuel and external competition (mainly from China) appears to have decimated smaller metals manufacturers. The small machine shops as well as backyard facilities in the Ekurhuleni area are all but disappearing because demand for their products is declining.

The small to medium-sized employers spoken to were mainly involved in 'jobbing' – that is producing individual bespoke items to the mining industry. Their businesses were sensitive to international competition (specifically from China) and lack of investment in the local mining industry. When gold mines in South Africa spiralled downward, many of the metal companies turned for work in mines opening up in Africa mainly in the DRC, Guinea, Sierra Leone, and Ghana. One interviewee explained that: "people who don't have exposure to end-users working outside the country are in a precarious situation – they can't really make it. The top-tier mining houses decide on development and we pursue one another's green fields' projects. You do work not where people are looking to up production, but to patch something because it's leaking or not performing. Those guys on a decent sized mine are committing R1.5 – R3 billion and if you get a fraction of 1% you're doing nicely."

As the industry slips downward, so skilled people take flight and pursue greener pastures, leaving the industry with even less capacity to recover. One interviewee vividly described the situation: "We are just a little boat on a stormy night trying to cross the ice." While political uncertainty and lack of confidence was argued to be dissuading investment, spikes in commodity prices were seen to potentially drum up sufficient demand to open up mines and new shafts. One company was optimistic that after eight years of losses, they had started to see a turn around and with contracts signed with Transnet and Eskom, were expecting to buy two extra laser machines that would in turn require additional maintenance and operational personnel.

Plastics Sector:

Within the plastics value chain, the two key Sub-Sectors that fall within the focus areas of merSETA include manufacturers, both small and large, and recyclers who comprise the plastics pickers or collectors and recycling companies. In recycling (particularly plastics pickers), the Plastics Sector has some of the smallest and most vulnerable businesses

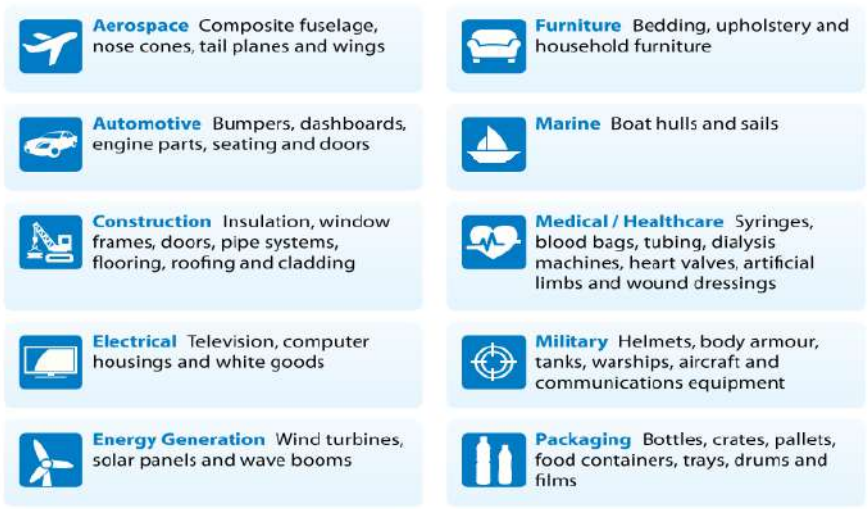
consulted. This is in stark contrast to the larger plastics manufacturers.The following change drivers have been identified in the plastics industry.

Table 13 Plastics Sector Change Drivers

Change Driver	Skill Implications
Automation in the Plastics Sector	Increasing use of automated machinery and new technology requires an adjustment to the skills make-up
Innovation in the Plastics Sector	there is a need to provide sector and sub-sector specific skills interventions
Mobility of Shop Floor workers	lack of skills prevent some employees from moving up the career ladder
Monopolisation of the Polymer Market	lack of skills acts as a barrier to entry and prevents new entrants to the market
Competition from lower-cost Chinese products	a lack of protection from cheaper imports in the form of tariffs may require more efficient manufacturing processes and the concomitant skills
Recycling of plastics and environmentally friendly focus	new environmentally-friendly products and manufacturing processes will require different skills but also present potential for new Smaller Employers in the Recycling Sub-sector

The Fourth Industrial Revolution (4IR) has also opened up a wide space in the industry to meet new demands for bespoke goods in other sectors, in a presentation made by Plastics SA in 2018, the additive printing market is making big strides in the medical sector with more than 10 million 3D printed hearing aids being produced word wide. Plastics is making an impact in the following sectors:

Figure 15 Markets for Plastics Applications (PlasticsSA, 2018)



2.3 POLICY FRAMEWORKS AFFECTING DEMAND AND SUPPLY

National Skills Development Plan 2030

A key consideration in this iteration of the merSETA SSP is the National Skills Development Plan 2030, promulgated by Minister Pandor on 6 February 2019 in terms of Section 9(4) of the Skills Development Act, no. 97 pf 1998 as amended and gazetted on 7 March 2019.

This policy locates skills development in an integrated Post School Education and Training (PSET) System, in order to focus on a demand led model which aims to assist economic growth, restructure the economy in terms of ownership patterns and growth patterns, as well as ensure the labour market in South Africa is skilled and capable.

Its key principles speak about developing the country across all sectors through inclusive growth and income generation as set out in the NDP, NGP and IPAP within an equitable and integrated system. Its key beneficiaries are the currently employed workforce and new entrants to the labour market seeking work experience. Skills development is seen as a system that works through collaboration within the public and public and private sectors to provide quality education and workplace experience to allow for adequate articulation between programmes and qualification offerings. Support is therefore key for both learners and employers to ensure an efficient, informed approach to education through standard processes (levy system and SETAs) and enabling technologies. All players in the PSET system will be held to the highest standards in terms of governance, quality of provision, sector analytics and research for demand led interventions, which will be supported by quality councils, education and train institution who are well organised and well resourced. These institutions are in turn supported by the SETAs as intermediaries.

The merSETA has already aligned many of its strategic objectives in line with the NSDP, the key focus areas identified in the merSETA strategy include the following:

- Developing **Skills 4.0 / Future Skills** for supporting the responsiveness of the sector to Industry 4.0 and re-industrialisation efforts of government.
- Promoting **innovation** in responding to socio-economic, technological and, structural transformation agenda of the state, the circular and green economy is also critical.
- Influencing **curriculum change** and **innovation** for the education and training system (both institutional and workplace based learning).
- Supporting **structural transformation** (ownership, control and management) through promoting entrepreneurship, SMMEs, localisation and uplifting the role of the manufacturing sector in inclusive growth.
- Conceptualising **partnerships** that are responsive to merSETA priorities.
- Strengthening **governance** and **resourcing** through building internal capacity, robust systems, processes, governance structures, procedures and other mechanisms such as improving the grant and incentives systems.

The table below shows the alignment of the outcomes of the NSDP with the strategic goals of the SETA:

Table 14 NSDP 2030 Outcomes and the merSETA Strategic Objectives

NSDP KEY OUTCOMES	MERSETA STRATEGIC OBJECTIVES
1 Identify and increase production of occupations in high demand.	3: Improved quality of organisational planning, budgeting, performance monitoring and reporting 5:Increased publication of research products that inform cutting edge solutions in the sector
2 Linking education and the workplace	6: Increased contribution to employment and growth opportunities through skills facilitation 7: Strengthened partnerships for improved responsiveness to the needs of the sector
3 Improving the level of skills in the South African workforce	5: Increased publication of research products that inform cutting edge solutions in the sector. 6: Increased contribution to employment and growth opportunities through skills facilitation 10: Increased throughput of learners in occupational programmes through a strengthened merSETA quality assurance system
4 Increase access to occupationally directed programmes	9: Increased responsiveness to the mer-sector, through the provision of sector endorsed occupational qualifications and part qualifications 10: Increased throughput of learners in occupational programmes through a strengthened merSETA quality assurance system
5 Support the growth of the public college system	7: Strengthened partnerships for improved responsiveness to the needs of the sector
6 Skills development support for entrepreneurship and cooperative development	8: Improved competency levels of Small and Medium Enterprises (SMEs), township and village enterprises and co-operatives entrepreneurs.
7 Encourage and support worker initiated training - driven by critical networks of employee representatives and unions officials.	7: Strengthened partnerships for improved responsiveness to the needs of the sector

Collective Strategies that drive the merSETA priority actions

Several national policies give direction to the manufacturing, engineering and related industries, including: the New Growth Path, the National Development Plan, and the National Industrial Policy Framework and the associated Industrial Policy Action Plan.

Collectively, their aim is to encourage employment-intensive growth (Bhorat, H., & Rooney, 2017; Williams, Cunningham, & De Beer, 2014). They all have at their core; key levers to ensure continued economic growth, job creation, sustained livelihoods, social justice and access to decent living conditions through human and community development. These plans draw a focus to the following key issues that the merSETA needs to respond to through various interventions:

- Transformation of the national economy
- Inclusive growth
- Localisation and re-industrialisation
- Community Development
- Making opportunities available to People with Disabilities (PWD)
- Supporting the Green and Blue Economies
- Supporting the informal, small and medium business
- Rural development
- Youth Development

The merSETA acknowledges the significance of national strategies in driving imperatives that are central for the growth and development of South Africa's civil and business sectors. The National Development Plan, National Skills Development Plan, Human Resource Strategy and Rural Development Strategy and the IPAP aims to stimulate sustained economic growth through re-industrialisation and "learning by doing" in order to compensate for global shifts and uncertainty in an age of technology. It acknowledge the manufacturing sector as the main sector to drive economic growth and employment creation.

The latest iteration of IPAP 2018/19-2020/21 highlights some of the achievements from the automotive sector, plastics sector and metal fabrication, capital and rail transport equipment which are the key features of the merSETA industries.

The IPAP unpacks three sectoral focus areas in relation to the mer sectors (manufacturing, engineering and related services sectors) that have skills development dimensions which should be leveraged by the merSETA and its stakeholders to guarantee sectoral development through skills, these being the automotive sector, the metal fabrication and rail transport sector and the plastics sector.

Automotive sector: Some of the pressing challenges facing the sector is a relatively small domestic market and the overall competitiveness gab between South Africa and other competing regions. To address these constraints, the South African government is putting in significant effort to support local industries and integration to the international market through various programmes and initiates. Along with the Automotive Master Plan, The Automotive Supply Chain Competitiveness Initiative (ASSCI) will continue to be implemented in the key areas to improve supplier competitiveness. Key to this is supporting skills programmes related to engineering and the trades for industry supply and ensuring sustainable productivity.

Metal fabrication, capital and rail transport equipment: The metal fabrication, capital and rail transport equipment consist of manufacturing sectors of ferrous metals, non-ferrous metals, capital equipment (largely used in manufacturing and development of infrastructure) and rail transport equipment. Despite government efforts to prioritise localisation within these sectors, the sectors are still confronted by challenges that threaten the industry's competitive advantage to the international market. This is underscored by the recent decision by the U.S. government not to exempt South African steel products from import duties which will cost local exporters an estimated R3billion (SEIFSA, 2018). Above all, some of the impediments faced by these sectors are as a result of inadequate policy alignment and poor coordination of essential value chains causing negative implications and this incorporates

uncompetitive inputs costs, inefficiencies across the value chain and unequal trading platforms.

The Industrial Policy Action Plan also states that a lack of skills exacerbates these problems, particularly with respect to qualified artisans, technicians, engineers and project managers. The SIPs present the largest single opportunity to stimulate industry on the back of localisation requirements and focused supplier development programmes. Significant investments in rail network and infrastructure projects on the African continent will increase the demand for locomotives and wagons. In addition, the African Union's pronouncement of South Africa as a rail Centre of Excellence for the African continent provides a vital platform to deepen South Africa's rail manufacturing capabilities. Opportunities exist to integrate the rail rolling stock suppliers into the global value chain of the OEMs.

Plastics industry: Plastics and plastic components have become a fundamental pillar in the South African economy, producing goods, applications and services used across the entire economy, including infrastructure programmes, construction, general engineering, mining, automotive, packaging and boatbuilding materials. The IPAP 2018/19 stipulates that in 2016, the plastics sector contributed about R76 billion to the total economy, representing about 1.9% of GDP and approximately 16.5% of manufacturing sector output. The plastics industry employs around 60,000 people (both formal and informal), with almost 1,800 companies across the plastics supply chain (IPAP, 2018).

This gives an indication to the merSETA as the driver of skills development that there should been increased focus to support training initiatives in this sector. Like other sectors, the plastics sector is also confronted by constraints with respect to access to key raw materials; pricing of raw materials, relatively small local and regional market; lack of advanced manufacturing practices; lack of downstream focus of Research and Development efforts; and South Africa's geographic position and resultant logistics costs. Government has prioritised support for the sector through optimised localisation and public procurement to foster economies of scale. Some of the key interventions highlighted in the plan is the development of polymers from waste which will address the increasing local demand of polyethylene polymers. The second intervention is plastics industry skills development, testing and innovation, which will focus on improving innovation and competitiveness in the plastics industry through skills development and R&D and testing. The third intervention is the increased integration of plastics components into the automotive sector to promote the localisation of plastics components and increase the local plastics manufacturing base.

The merSETA has shown a strong drive to support skills development initiatives by conducting a national study on Labour and Skills Supply and Demand which aims to understand skills composition in the SMME, formal and informal enterprises that incorporate activities in the plastics industries. Further areas of intervention for merSETA should be on the improvement of critical skills for sustainable growth and assisting unemployed learners to participate in accredited work, integrated learning and workplace experience programmes to promote employability and sustainable livelihoods.

2.4 STRATEGIC MEASURES TO SUPPORT SKILLS DEMAND AND SUPPLY

In this section, we summarise the sectoral drivers and alignment to national strategies to inform strategic measures which are either currently in process or should become more emphasised in the merSETA list of priority actions.

Across all the sectors, the key themes that emerge speak to the following:

Table 15 Sectoral Trends, National Imperatives and Implications for Skills Development

Sectoral Trends	National Imperatives	Implications for skills development
1. Reindustrialisation and localisation	Strong support to spur economic growth and develop potential in both local and international markets (global value chains)	Re-industrialisation and localisation holds great potential if successfully achieved, currently South Africa is faced with high unemployment rates and an enormous skills shortage which will obstruct the reindustrialisation drive before it starts. More than 6 million South Africans are unemployed, and youth unemployment remains stubbornly above 50% (Business day, 2018). Skill interventions required in support of the DTI's IPAP, SEZs and designated trades. Government ambitions for economic growth should be supported through key partnerships for skills development and the private sector.
2. New technologies and changes to the way business is conducted in the sectors brought about by advanced methods in 4IR	Support for accessing markets, structural reform and using technologies to improve the business sector as well as efficiencies in the public sector for demand led interventions	South Africa's manufacturing industry is still at a foundational stage when it comes to the adoption of smart technologies that accelerate 4IR (merSETA Supply and Demand Study, 2018). Assist in job preservation and growth through realignment of skills where necessary. Develop a skills strategy in line with future demands.
3. Energy efficiency, sustainability and a focus on green principles	Emphasis placed on developing both blue and green economies to sustain not only livelihoods but also the environment. The South African government supports the green economy through the national Cleaner Production Centre of South Africa and supporting policies and the blue economy through Operation Phakisa	The circular economy can be seen as an economic model that minimises resource input and waste generation. There should a focus on facilitating environmentally sustainable "green" practices. The focus on marine transport manufacturing has the opportunity to deepen component manufacturing and rebuild domestic capabilities facilitating re-industrialisation and localisation. Small businesses can be supported for recycling and reducing harm by products that have reached their "end life". Build greater awareness and advocacy for green skills and green technologies. Up-skilling interventions have been supported by the merSETA through the adoption of a cross-cutting theme of sustainability in 2012. To ensure the relevant skills are developed for the circular economy, curriculum design and development of new qualifications and occupations should take into account
4. Skills required that are updated and adaptable to the needs of industry in the near and longer term future	A skilled and capable workforce able to respond the sectoral demands and grow the economy. Demand led, well researched and technologically enabled response for the needs of industry. The South African Government has already indicated the	Workers find that their skills are made redundant and they either face retrenchment or redeployment in areas where their skills can still be utilised. Future ready curricula must be developed in time to meet the demands of the future. With this in mind there is an emphasis on science, engineering and technology, increasing digital fluency and using technology to solve complex problems.

Sectoral Trends	National Imperatives	Implications for skills development
	willingness to expand learning modality especially to those who experience barriers to participation such as geographic location, lack of access to digital infrastructure, time pressures, lack of admission qualifications, lack of finances etc. The department has therefore adopted an "open learning" strategy (Government Gazette, April 2017).	• **New or improved curricula must account for broad areas with respect to:** predictive analytics, artificial intelligence, additive printing, the internet of things (5G), nanotechnology, automation and robotics. • **Professions in the future will typically center on the following types of jobs:** motor manufacturing technicians, wind turbine service technicians, flexible app developers, computer programmers, artificial intelligence and robotics specialists, and cloud computing specialists among others.
5. High demands of structural change may exclude many in the workforce due to limited skill and advanced age	Strong emphasis on inclusivity (poverty, disability and breaking barriers to access), community development, youth development and support for small and informal business.	merSETA is in the process of evaluating its programmes to ensure that its service offering is not only of a high quality but that it also ensures better packets of support to break barriers to entry and succession once enrolled. A partnership model in line with NSDP is required. Civil society partnerships and regional focus areas should be developed where communities can access skills development opportunities through either community education centres, TVET colleges or higher education institutions.

It is clear from the discussion in this chapter that the manufacturing, engineering and related services sector is experiencing significant changes due to domestic and global economic developments. The SETAs in partnership with government, employers, civil society and the PSET system at large can work to effect the required interventions. The literature around 4IR suggests that there are opportunities to create even more jobs than before, however these are not the traditional occupations so the interventions can also not be traditional.

In an effort to build a global competitive manufacturing sector, re-industrialisation and localisation are key initiatives driven by IPAP aimed at promoting growth of the sector and its capability to create more jobs. Technology has a far reaching impact on skills development and labour demand. It is evident that merSETA needs to play an increasingly active role in supporting government imperatives that will spur economic growth by becoming the sought after partner in driving skills to achieve the vision.

If one considers that in the preceding chapter, the economy is waning, making workplace based learning difficult due to sheer lack of workplaces and therefore making post school training more difficult unless government support wider access and new forms of delivery as expressed in the recent open learning policy framework. The merSETA is already exploring options to widen access to training through leveraging skills development opportunities in more small, medium and possibly even informal workplaces. This requires innovation in skills provision without hindering quality. Policy also needs to respond to these changes to create an enabling environment for innovation in skills provision to flourish.

3. OCCUPATIONAL SHORTAGES AND 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.

3.2 SECTORAL OCCUPATIONAL DEMAND

3.2.3 Occupations that are Hard to Fill Vacancies

The WSP 2019 data provides information on hard to fill vacancies (HTFVs) based on a template provided by the DHET from the proposed Workplace Skills Survey (WSS).

Of all the WSPs submitted, 3931 companies filled out the skills requirements section pertaining to HTFVs. Most 3458 (88%) companies indicated that they did not have any HTFVs due to them being able to easily fill vacant positions or not having any vacancies to fill (figure below). The table below shows the number of companies who indicated hard to fill vacancies by occupational group. The majority of these were for skilled trades' workers, sales workers and managers.

Table 16 HTFVs by No. of Company and Occupational Group (WSP, 2019)

Occupational Group	No. Companies	% HTFVs
Managers	120	10%
Professionals	150	8%
Technicians and Associate Professionals	72	6%
Clerical Support Workers	38	4%
Service and Sales Workers	31	22%
Skilled Trades Workers	323	41%
Plant & Machine Operators & Assemblers	38	6%
Elementary Workers	18	3%

The table below shows the HTFVs by occupational group for companies that indicated they require these vacancies. The vacancies are only those that had 5 or more unfilled seats (this is used as a proxy for heightened demand despite limitations in the vacancy data as described in the preceding paragraph). This means that employers were not able to fully fill their recruitment requirements at the time of data collection. It is evident from the table that the majority of HTFVs that remain unfilled is at artisanal level. Operator and elementary levels also have more than two occupations remaining vacant.

Table 17: Hard to Fill Vacancies by Occupation (merSETA WSP, 2018)

Occupational Group	Occupation	Total HTFV	Unfilled HTFVs	% Unfilled
Managers	Business Operations Manager	32	8	25%
Managers Total		32	8	25%
	Finance and Insurance Consultant	30	9	30%

Occupational Group	Occupation	Total HTFV	Unfilled HTFVs	% Unfilled
Technicians and Associate Professionals	Chemical Engineering Technician	8	8	100%
Technicians and Associate Professionals Total		38	17	45%
Service and Sales Workers	Motor Vehicle Salesperson	370	123	33%
Service and Sales Workers Total		370	123	33%
Skilled Trades Workers	Steel Fixer	100	100	100%
	Scaffolder	50	50	100%
	Structural Steel Erector	50	50	100%
	Automotive Motor Mechanic	160	47	29%
	Millwright	38	25	66%
	Arc Welder	20	20	100%
	Gas Cutter	20	20	100%
	Special Class Electrician	20	10	50%
	Carpenter and Joiner	24	9	38%
	Toolmaker	9	8	89%
	Fitter and Turner	8	8	100%
	Electrician	8	8	100%
	Machine Tool Mechanician	8	8	100%
	Automotive Electrician	16	7	44%
	Specialised Tooling Machinist	9	7	78%
	Metal Plate Bender	6	6	100%
	Lubrication Equipment Mechanic	8	6	75%
Skilled Trades Workers Total		554	389	70%
Plant & Machine Operators & Assemblers	Assembler\Metal Products (Except Mechanical)	50	42	84%
	Assembler\Plastic Products	36	12	33%
	Fibreglass Hand Laminator	28	10	36%
Plant & Machine Operators & Assemblers Total		114	64	56%
Elementary Workers	Mechanic's Assistant	20	18	90%
	Auto Electrician's Assistant	12	10	83%
	Boilermaker's Assistant / Aide	18	6	33%
Elementary Workers Total		50	34	68%
Grand Total		1158	635	55%

3.2.4 Reasons for Hard to Fill Vacancies

In the analysis, occupations that are deemed difficult to fill refer to occupations in which respondents reported that there were 15 or more vacant positions. As demonstrated by the tables below, sectors reported greatest difficulty in recruiting talent into service and sales work, craft and trades work and management respectively.

Reasons for the hard to fill vacancies for managers was mostly due to lack of experience and lack of equity candidates to take up the occupations. The majority of groups lacked experience

combined with, specific skills being problematic for technicians and artisans, as explained by interview data from SSP interviews and the supply and demand study, having a qualification is not enough, candidates also need to have relevant experience and a specific skill set to go along with the qualification – particularly technical skills. The biggest difficulty is in finding candidates with the right experience, the right qualifications and the right skill set as highlighted in red in the table below. Employers did not consider personal attributes of candidates, poor remuneration nor geographical location as major setbacks with regard to filling vacancies as highlighted in green.

Table 18: Reasons for Hard to Fill Vacancies by Occupational Category (merSETA WSP, 2019)

Reason	Managers	Professionals	Technicians Assoc Professionals	Clerical Support Workers	Service and Sales Workers	Skilled Trades Workers	Plant & Machine Operators & Assemblers	Elementary Workers	Total
Candidates do not have the right experience	133	79	42	59	297	166	66	2	844
	42%	**29%**	**23%**	**48%**	**49%**	**13%**	**32%**	**3%**	**28%**
Candidates do not have the right characteristics/attitudes		10	10		5	15			40
	0%	**4%**	**6%**	**0%**	**1%**	**1%**	**0%**	**0%**	**1%**
Candidates lack specific qualifications	12	21	42	8	1	368	22	2	476
	4%	**8%**	**23%**	**7%**	**0%**	**29%**	**11%**	**3%**	**16%**
Candidates lack specific skills	58	141	71	55	303	538	106	62	1334
	18%	**51%**	**39%**	**45%**	**50%**	**42%**	**52%**	**93%**	**44%**
Equity considerations makes it difficult to find candidates	107	22	13	1	3	146			292
	34%	**8%**	**7%**	**1%**	**0%**	**12%**	**0%**	**0%**	**10%**
Poor remuneration	1					16	9		26
	0%	**0%**	**0%**	**0%**	**0%**	**1%**	**4%**	**0%**	**1%**
Vacancy situated in remote/difficult to access location	4	2	2			19	1	1	29
	1%	**1%**	**1%**	**0%**	**0%**	**1%**	**0%**	**1%**	**1%**
Grand Total	315	275	180	123	609	1268	204	67	3041
	10%	**9%**	**6%**	**4%**	**20%**	**42%**	**7%**	**2%**	**100%**

3.3 SKILLS GAPS IN THE SECTOR

According to the DHET SSP framework, skills gaps refer to "skills deficiencies in employees or lack of specific competencies by employees to undertake job tasks successfully to required industry standards. Skills gaps may arise due to lack of training, new job tasks, technological changes, or new production processes, to list a few. The term 'top up skills' also refers to skills gaps and usually requires a short training intervention".

Throughout this document the notion of future skills has been noted in light of globalisation and competitiveness, re-industrialisation and skills for 4IR. Along with these trends arise critical skills and skill sets which are required by workers that are not necessarily found in traditional institutional learning (merSETA Supply and Demand Study, 2018). The world of work is changing as so is the notion of a workplace. In order for workers to keep pace and

remain viable over time, they need to possess key skills that will allow them to be more successful in their work and more marketable to relevant sectors. Commentary of expert practitioners in the sector have reiterated the difficulties in terms of firstly ensuring learners have access to a workplace but secondly that newly developed qualifications take far too long to be developed and registered making it difficult for SETAs and industry to respond. The PSET fraternity including the QCTO, NAMB, SAQA and the SETAs need to band together with Government and Industry to ensure that the relevant skills required are made available to learners in the workplace.

Analysis of skills gaps information yielded the following:

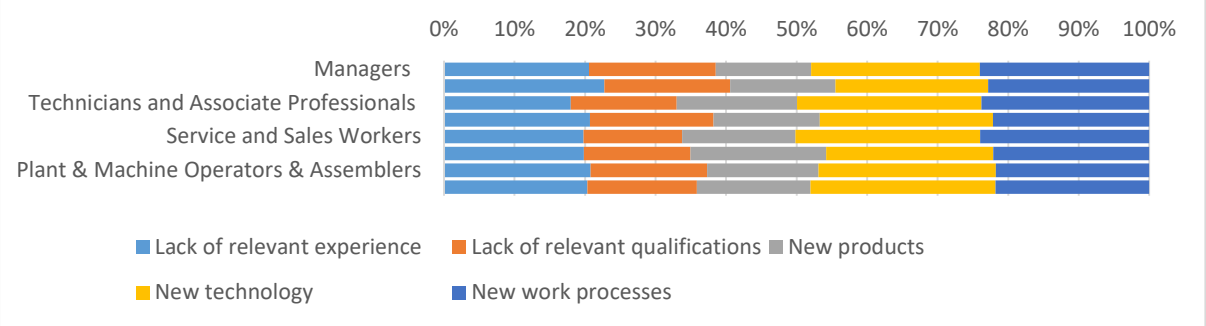
Table 19: Skills Gaps across (merSETA WSP, 2019)

Skills Gap	Managers	Professionals	Technicians & Assoc Professionals	Clerical Support Workers	Service & Sales Workers	Skilled Trades Workers	Plant & Machine Operators	Elementary Workers
Advanced Computer IT and software	■							
Basic Computer (IT)		■		■				
Communication (oral)		■						
Communication (written)	■							
Customer Service						■		
Financial and Accounting Skills	■		■		■			
First Aid				■				
Interpersonal skills		■						
Language barrier		■						
Legal governance and risk			■		■			
Management and Leadership			■		■	■	■	■
Marketing and Sales						■		
Occupational Health and Safety		■		■			■	■
Office Administration	■		■		■	■	■	■
Planning and organising	■		■	■	■	■	■	■
Problem Solving	■	■	■	■	■	■	■	■
Production		■	■	■	■		■	■
Project Management	■		■		■	■	■	■
Reading writing and numeracy		■		■				
Supervisory skills	■		■	■	■	■	■	■
Teamwork	■	■		■		■	■	■
Technical (job-specific)		■	■	■	■	■	■	■

It has been previously noted that with automation on the shop floor, workers need to be re-skilled and up-skilled to take on opportunities. In order to do this, workers must possess key behaviours and mindsets in order to navigate a successful, progressive career. It may even be said that from the time workers start their training, they should already have a good grounding on which to develop critical skills for success.

The reasons for skills gaps are outlined in Figure 23 below. It would appear that overall the notion of a changing workplace is the main driver of skills gaps, thus technology and new processes account for almost 50% of the reasons by occupational category.

Figure 16: Reasons for Skills gaps by occupational group (merSETA WSP, 2019)



3.4 EXTENT AND NATURE OF SUPPLY

3.4.1 The State of Education and Training Provision

The stock of skills available to the metals, automotive and plastics manufacturing sectors includes the group of people currently employed (as described in the sector profile). Current unemployed people who were previously employed in the sector, must also be considered as part of the current supply of skills. The sector has shed jobs year on year since 2008.

3.4.2 Higher Education and Training

While a range of general qualifications from the Higher Education and Training (HET) sector in the areas of finance, accounting, human resources and Information and Computer Technology (ICT) are utilised in the merSETA sector, the output of engineers is most relevant. Particularly in the fields of electrical engineering, mechanical engineering, chemical engineering, industrial engineering, and metallurgical engineering. With an emphasis placed on skills for 4IR, it is also important to consider additional engineering disciplines such as those for the plastics sector and manufacturing in general. The table below demonstrates the number of national diplomas awarded in engineering fields. It should be noted that polymer/plastics engineering and systems engineering are experiencing negative growth. The plastics chamber recently completed a primary research project to review the demand for HEI training in this field and the results confirmed that there was very low uptake.

Table 20: Diplomas Awarded in Engineering fields 2012 – 2016 and Average Annual Growth (AAG) (HEMIS, 2018)

CESM Category	2012	2013	2014	2015	2016	2017	AAG (%)
Chemical engineering	499	580	671	604	556	619	3.0
Electrical, Electronics & Communications engineering	1 372	1 536	1 775	1592	1702	1 631	2.5
Engineering mechanics	143	180	184	152	186	106	-9.3
Materials engineering	17	16	27	37	27	41	9.8

Mechanical & Mechatronic engineering	793	883	1 004	1033	908	1 079	4.5
Systems engineering	17	16	15	14	13	15	-2.4
Polymer/Plastics engineering	8	2	1	0	0	0	0.0
Industrial engineering	254	336	404	413	427	435	8.1
Manufacturing engineering	16	33	24	21	5	26	-39.9

Table 21 below, shows the number of first degrees awarded in the selected engineering fields during 2012-2016. Upon successful completion of their qualifications and a minimum three years practical experience, these graduates become available to the national economy as engineers or engineering technologists and can register with ECSA as professional engineers or engineering technologists in their respective fields. Negative growth is demonstrated for systems engineering, polymer/plastics engineering and manufacturing engineering.

Table 21 First Degrees Awarded in Engineering fields 2012 – 2016 and Average Annual Growth (AAG) (HEMIS, 2018)

CESM Category	2012	2013	2014	2015	2016	2017	AAG (%)
Chemical engineering	653	670	703	807	761	751	2.1
Electrical, Electronics & Communications engineering	934	1 092	1 174	1332	1309	1 321	5.4
Engineering mechanics	38	36	47	45	38	48	2.6
Materials engineering	29	39	33	40	41	34	1.1
Mechanical & Mechatronic engineering	1 025	1 124	1 160	1282	1419	1 553	6.6
Systems engineering	64	88	105	47	50	54	-11.1
Polymer/Plastics engineering	18	14	11	17	15	8	-20.2
Industrial engineering	431	510	569	711	751	757	8.7
Manufacturing engineering	26	27	38	41	39	47	8.6

Importantly, graduates with national diplomas and first degrees from the HET system have to meet the needs of all sectors of the national economy that require these skills, and not only the needs of the manufacturing, engineering and related services sectors. Competition between sectors is strong because, despite the positive growth in output in all fields, these increases have not been sufficient to alleviate the shortages of these skills in the country. As such, direct support for the generation of these skills through incentive schemes such as bursaries plays a critical role in channeling graduates into the manufacturing, engineering and related services sector.

3.4.3 TVET Colleges

Traditionally, TVET college programmes in engineering have been very limited and narrow in content as they were designed to meet the demands of manual low-skill and low-wage industries. This has resulted in challenges for universities and universities of technology in their attempts to recognise these qualifications for articulation purposes. According to the merSETA QMR data, the main trade areas studies towards in TVET Colleges in the manufacturing sector include among others Electrical engineering, boilermaker, diesel mechanic, and engineering and related design (QMR, 2018).Additionally, as the work-experience component of training is not enforceable, employers have been reluctant to accept these students.

TVET colleges form a critical component of the current training capacity of artisans. TVET colleges offer training for the NQF Level 4 National Certificate (Vocational) (NCV) and the merSETA currently has relationships with the majority of TVET colleges. Through partnerships with public TVET colleges, the merSETA is increasing the artisan development pipeline through the NCV artisan training programme. This programme has offered NCV learners an alternative pathway to becoming artisans, besides following the traditional apprenticeship pathway. The table below shows the exam results of learners who wrote the NCV exam, pass rates tend to decrease in the higher NCV levels with NCV(4), the level at which the merSETA trains artisans, having a pass rate of less than 30% on average.

Table 22: NCV Results (2018)

NCV Level	Course	Enrolled	Wrote exam	Passed	
		N	N	N	%
Level 2	Civil Engineering and Building Construction	3 211	2 652	1 153	43.5
	Electrical Infrastructure Construction	5 768	4 811	2 047	42.5
	Engineering and Related Design	6 003	5 014	2 227	44.4
	Mechatronics	321	274	149	54.4
Level 3	Civil Engineering and Building Construction	3 119	2 641	1 086	41.1
	Electrical Infrastructure Construction	5 070	4 352	1 309	30.1
	Engineering and Related Design	6 019	4 985	1 912	38.4
	Mechatronics	432	366	116	31.7
Level 4	Civil Engineering and Building Construction	2 028	1 790	411	23.0
	Electrical Infrastructure Construction	3 131	2 887	771	26.7
	Engineering and Related Design	3 485	3 114	745	23.9
	Mechatronics	**279**	**260**	**82**	**31.5**

A critical issue was picked up by key stakeholders in the sector in that many of the qualifications developed by the SETA which are deemed valuable by industry are not offered in the TVET Colleges (i.e. colleges are not accredited for such qualifications), an example was made of the AMIC and NCAMA qualifications which is essential for the automotive sector. In this instance only two OEMS and 2 private training providers have been accredited by the

merSETA[11]. The recommendation was made that more support is needed at higher levels to enable the SETA to successfully implement training that is actually required by industry. Government must capacitate and develop the TVET Colleges for them to be able to deliver this training, equipment is needed as well as competent TVET lecturers, and furthermore TVET College leaders must be more involved to ensure meaningful partnerships are forged.

3.4.4 TVET Centres of Specialisation (CoS)

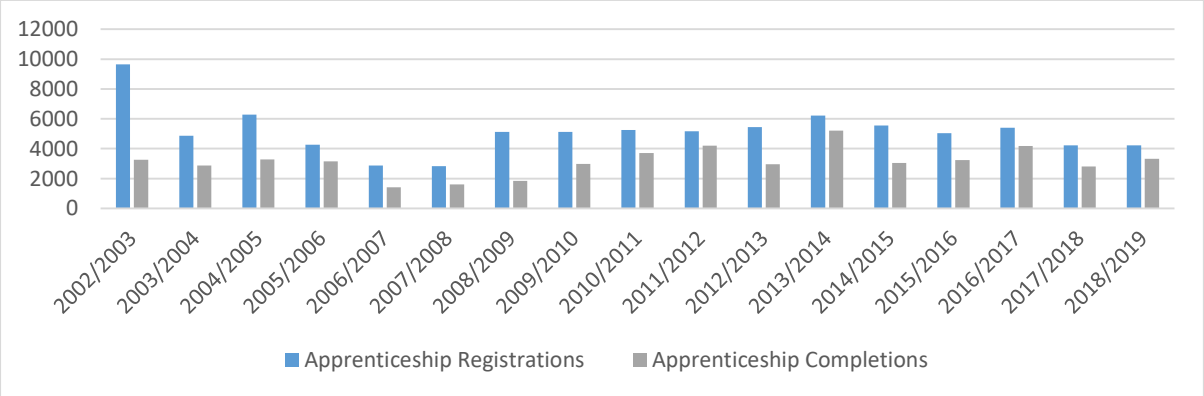
The DHET identified thirteen priority trades for the construction of the Strategic Integrated Projects (SIPs) of the National Infrastructure Plan and for other projects. In response to the demand for these trades, the DHET established 26 CoS at selected TVET colleges. The CoS functions as dedicated sites to the delivery of specific occupational qualifications (College of Cape Town, 2018). The CoS Programme is important for the country in that it will produce a new model for training of apprentices and seek to ensure the quality of skills that employers seek are developed through a mandatory public college-industry collaboration (Sacci, 2018).

3.4.5 Learnerships and Apprenticeships (merSETA)

Since its inception, the merSETA has registered 87599apprentices on apprenticeships and 95505 learners on learnerships. The predominant trades attained through apprenticeships include motor mechanic, diesel fuel injection mechanic, electrician (engineering), fitter and millwright. In the same period, a total of 53058 apprentices qualified as artisans in the sector and another 53072 learners successfully completed their learnerships (QMR, 2019). The most dominant learnership programmes include production technology, metals production, welding application, automotive repair and maintenance and automotive components: manufacturing and assembly (QMR, 2019).

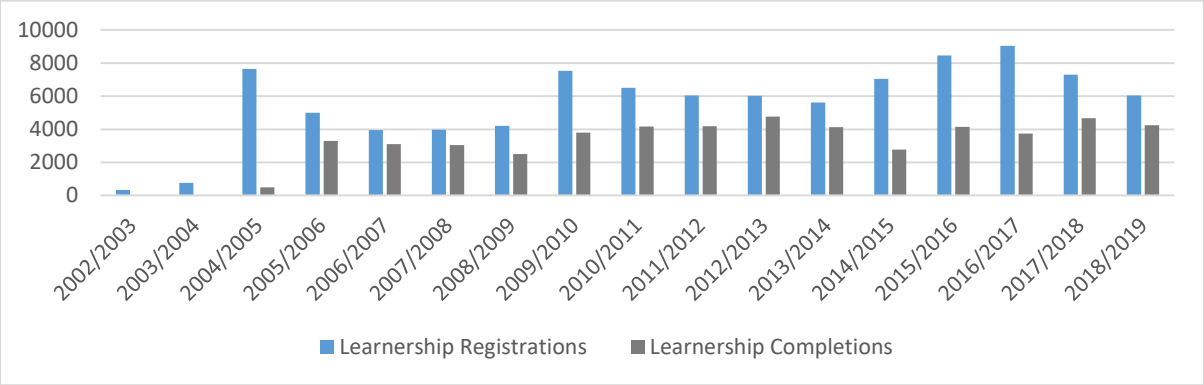
The annual registration and completion figures for apprentices and learnerships since 2002 are shown in Figure 26 and Figure 27 below. It is clear that apprenticeships and learnerships form a crucial part of the supply of skills to the sector. Therefore, the merSETA continues to support the uptake of these learning pathways and continues to monitor trends in registrations and completions.

Figure 17: Apprenticeships Entered and Certified (merSETA QMR, 2018)



[11] Stakeholder discussion held on 3 June 2019

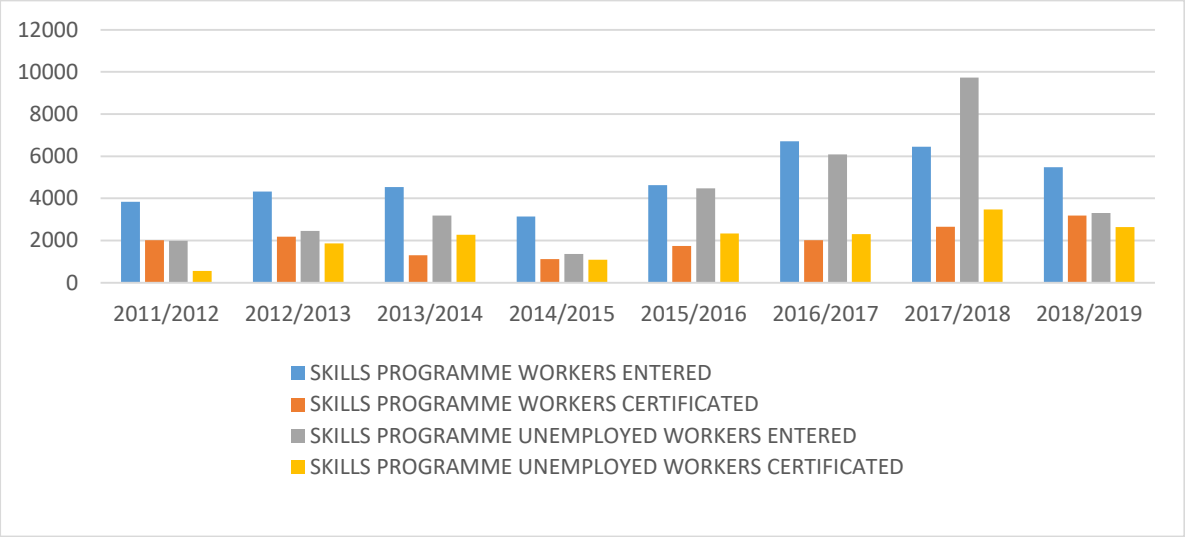
Figure 18: Learnerships Entered and Certified (merSETA QMR, 2018)



3.4.6 Skills Programmes

A skills programme is a structured learning programme that comprises an agreed cluster of unit standards drawn from a NQF registered qualification. 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. A completed skills programme therefore constitutes credits towards an NQF-registered qualification. Skills programmes continue to form an important part of the training and development of the occupational groups 'plant and machinery operators and assemblers' and 'elementary workers'. Registration in skills programmes has increased steadily. Between the 2011/12 and 2018/19 financial year, a total of 71 652 learners were registered in skills programmes with 32 706 qualifying during the same period (see Figure 20).

Figure 19: Skills Programme Registrations and Completions: 2011/2012-2017/2018 (merSETA QMR, 2018)



3.4.7 Community Education and Training

A substantial 19% of the sector's employees are employed as elementary workers and are likely to have formal educational levels below NQF Level 4. A proportion of those employed as plant and machine operators and assemblers (especially older employees) are also likely to have comparatively low levels of formal education and still require ABET, but this is becoming

less demanded as the sectors educational levels increase over time – even at lower occupational groups, this is confirmed by sector interviews as well merSETA research. AET is critical to the sector's ongoing need to raise general skills levels and support the acquisition of critical core skills and health and safety skills.

It was previously reported that the majority of the sectors' employees have NQF4 qualifications which is equivalent to a matric qualification however when considering the total population, literacy remains a concern in South Africa. A Mail & Guardian (MG) article likened low levels of literacy as a silent disability because it limits access to growth opportunities on a personal and professional level; it also exacerbates poverty and inequality which in turn constrains communities and economies (MG, 2018). Despite higher levels of education, many South Africans have a lower literacy rate (below Grade 9), this is even worse in terms of effective communication in a job. We saw that written communication, reading, writing and numeracy skills were lacking even in professional and clerical workers in the mer sector (section 3.2). According to StatsSA, almost 15% of adults over the age of 20 are regarded as functionally illiterate in 2017 and 70% of grade 4 learners have difficulty reading for meaning in any language; this was attributed to a lack of access to reading material (UCT News, 2019).

For the merSETA it will be imperative to pay cognizance to the high proportion of workers who are working at elementary level and the likelihood that adults in the sector could have lower levels of literacy than their level of education; furthermore new entrants into the sector may have similar characteristics which may be compounded by limited numeracy skills. Supporting community education and development will go a long way in fostering a pipeline of better skilled individuals who can take up further learning opportunities in the mer sectors, particularly among the youth and rural communities. In addition Community Colleges need to be better supported to produce a pipeline of learners to take up opportunities in the sector with respect to basic IT, effective workplace communication, entrepreneurial skills and problem solving.

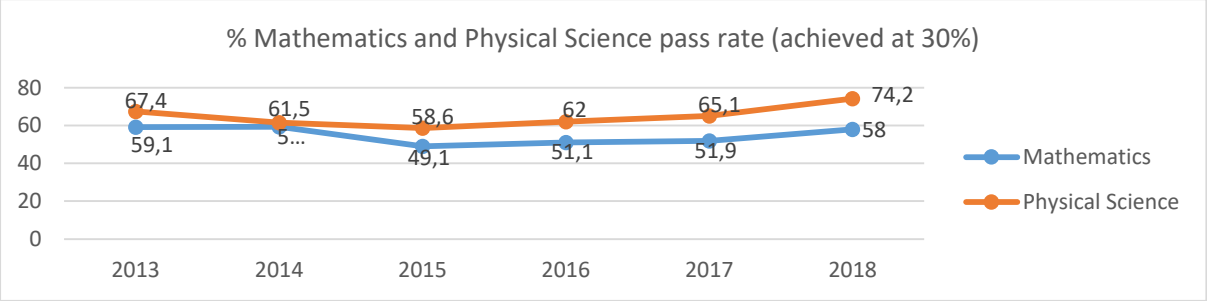
3.5 SKILLS SUPPLY SIDE CHALLENGES

This section relies heavily on desk research and the skills supply and demand project that the merSETA completed in 2018.

3.5.1 Basic Education and Training

The basic education and training sector is the feeder into the PSET sector, overall the outputs from this sector has improved over time with more learners achieving a bachelors' pass (NSC, 2018). Overall the sector is still plagued with challenges which includes a lack of books, large classes and a lack of adequate teaching staff however, the South African government is making improvements to the curriculum, recognising the importance of skills for a changing world, making reference to the needs of 4IR. Skills such as critical thinking, problem solving, collaboration and team work, innovation and creativity, computational skills, human rights and social justice have been embedded in the curriculum (NSC, 2018). The 2018 year represents the 5th cohort to be exposed to the CAPS curriculum

Figure 20: Percentage Mathematics and Physical Science Pass Rate (Achieved at 30%)(NSC Examination Report, 2018)

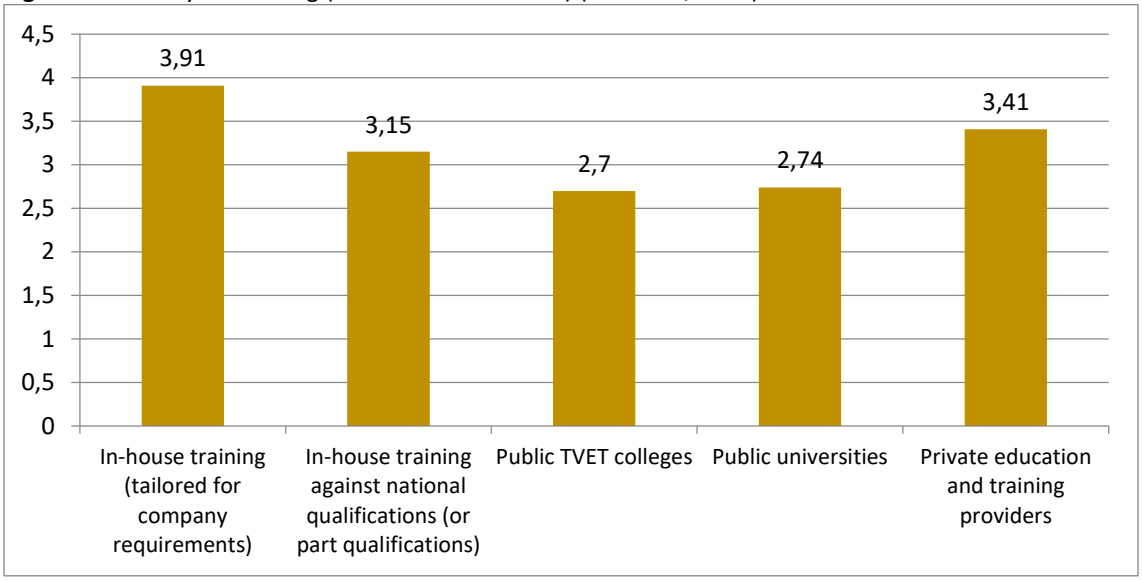


When comparing the average pass rates of mathematics and physical science for 2014 to 2015, mathematic declined from 59.3% to 49.1% and physical science declined from 61.5 % to 58.6%. Since the decrease in 2015 for both subjects, the average pass rate for both seems to be steadily increasing with a 0.8% increase for mathematics between 2016 and 2017 and a further improvement of 6% between 2017 and 2018. For physical science, the figure shows 3.1% increase between 2016 and 2017 for physical science and almost 10% increase between 2017 and 2018 (NSC Examination Report, 2018). The pass rate is achieved at 30% and although learners are doing well to see an improved pass rate, the mer sector view this as insufficient for the demands of the curricula required to enter training at PSET level for the sector. Learners will require additional support.

3.5.2 Quality of Provision in the PSET Sector

The supply and demand study conducted by the merSETA in 2018 raised some important points with reference to training provision. According to the study, the vast majority of survey respondents claimed to train in-house and it also scored it the highest in terms of the quality of training. Just over 57% of employers surveyed thought the quality of training of accredited training providers was 'good', compared to just 9% who said it was not. About 34% indicated that they did not have an opinion about the quality of the training. Amongst the different education and training providers, in-house training and private training providers scored median scores above the average of 3 on training quality as compared to 2.7 for TVET colleges and 2.74 for public universities. In other words, employers within the region have a dim view of education and training provision by public TVET colleges and universities.

Figure 21: Quality of Training (Satisfaction score 1-5) (merSETA, 2018)



Meanwhile, 20% of employers thought there was "a good pool of public TVET college graduates to recruit from", while almost 38% thought the contrary. Interestingly, 42% did not make an opinion on TVET college graduates, mostly indicating that they were not recruiting from the colleges. In the interviews, there was not generally high regard for TVET programmes – dismissed as theoretical or a "waste of time".

3.5.3 Competition for Skills with Other Sectors

The manufacturing and engineering sector competes with other sectors to attract engineering graduates whose skills are sought after in other sectors such as construction, finance, ICT, energy and mining etc. The movement of skilled artisans and engineers across the sectors also pose a supply-side challenge for the manufacturing, engineering and related services sector. Attractive working conditions in other sectors may be a pull factor for engineers, technicians, artisans and professionals in the merSETA sector. The decline of the manufacturing sector which has been coupled with declining employment in this sector as indicated in previous chapters has reduced the attractiveness of this sector.

Primary research indicates that SMMEs also struggle to retain talent, training mostly on the job due to limited budgets as well as the war for talent which is making it difficult to retain trained employees. Where small and medium sized employers are training, they predominantly utilise private training providers. A training provider in the North West province said that they received a lot more demand for training from smaller companies because they don't have the capacity and capital to train their own employees. Another training provider said the same thing: "the big companies train their own people and we train people for small companies". Important considerations with respect to supporting smaller enterprises through the skills development levy system.

3.5.4 Employability of merSETA Graduates in the Labour Market

There is a general belief that companies prefer the traditional apprenticeship pathways. According to the merSETA 2016 tracer study, 84% of the learners who had completed apprenticeship programmes were employed. Of the 84% employed, 49% were retained in full-time employment by their initial employer while 25% were employed full-time by a

different employer. About 10% of the learners were employed part-time while 16% indicated they were still unemployed. According to StatsSA's labour market dynamics report 2016, in general, people with tertiary level qualification are more readily absorbed into the labour force than those with lower level education (matric and below). This data does not categorically state the absorption rate of TVET (previously FET) band graduates, therefore more analysis is required specifically focusing on mer sector employees.

In an effort to support institutional tracking and tracing the merSETA has embarked on a tracer study with the DHET and all other SETAs to tack and trace learners who completed the workplace based component of their training at least 1 year after completion. This is ultimately a destination study that will report on where learners end up, labour absorption, learner appetite to embark on additional training and learner ambitions with regards to their careers.

3.6 SECTORAL PRIORITY OCCUPATIONS AND INTERVENTIONS

Overall, HTFVs are not a good indicator of sector priorities as they tend to represent immediate demand and are subject to economic conditions and company policy, e.g. freezing headcount or expanding portfolios rather than additional recruitment requirements. In addition, they are not an indicator of emerging skills requirements and the need for particular sets of skills within occupations. As such the methodology for identifying occupations on the Priority list includes findings from primary research projects, stakeholder SSP interviews, recommendations from committee members and management.

The Priority Skills list represents the mer sectors priority skills requirements related to occupations aligned to the OFO, it comprises a ranked list of occupations in high demand. It is drawn up by the merSETA as described above, and considers the following inputs:

- merSETA 2018 Priority list
- List of skills emerging from primary research projects
    - Motor Industry Skills of the future
    - Supply and Demand Project, 2018
- WSP data, 2019
- Occupations in High Demand, DHET 2018

The Priority Skills list gives a national indication of occupations in high demand. The merSETA in its mandate as an intermediary continues to support interventions which are intrinsic to ongoing sector need as well as interventions to support innovation, research & development, special projects and national imperatives. This means that the merSETA does fund interventions that are not on the PIVOTAL list as per the discretionary grants policy. The Priority Skills list presented in the section to follow has been workshopped and approved by the merSETA accounting Authority.

3.6.1 Methodology for the Priority Skills List

To achieve the list of skills the following key steps were followed:

i. The list of hard to fill vacancies was refined, limiting the list to vacancies that remained unfilled and vacancies that had more than 5 positions vacant. This list also has a

Chamber breakdown to ensure all chambers are considered rather than only looking at the large numbers, the metal and motor chamber tend to skew the data in their favour due to the size of the chambers.

ii. Data from the supply and demand study were utilised to also develop a "primary research" list of skills in high demand by chamber.

iii. The skill report or Annual Training plan was also used to ascertain the type of occupations in which employers are training and the type of training they are indicating in the WSP.

iv. The previous year's Priority list was also utilised for this analysis

v. All the lists above were merged by chamber, the number of lists that an occupation appear on guides the weighting of the final 2019 list

vi. The DHET 100 Occupations in high demand developed through the LMIP programme was used as a benchmark against which to assign a weighting in terms of (high, higher and highest demand)

vii. The combination of the number of merSETA research lists, the Chamber representation across the highlighted occupations and the DHET list were than filtered to assign a merSETA weighting of high, higher and highest. The occupations were then ranked in order of priority.

viii. The merSETA quarterly monitoring (QMR) data was analysed to account for the apprenticeships, learnerships and skills programmes completed and entering the labour market, the rank is based on the ratio of completed programmes, demand derived from WSP data and PIVOTAL planning and status of the occupation taking into consideration its ranking on the national list of occupations in high demand.

It must be noted that the merSETA AA finds the over emphasis on the analysis of HTFV limiting as the data tends to be more about firms immediate needs, the HTFV may not necessarily be about skills and real/potential capability, and the HTFVs may not be the most appropriate for determining future occupational needs.

Table 23: merSETA Priority Skills List

Rank	OFO Code	OFO Specialisation	Description	Total
1	2017-122102	2017-122102-2	Sales Manager	834
1	2017-122102		Sales Executive	
2	2017-132102		Manufacturing Operations Manager	651
3	2017-121901		Corporate General Manager	630
4	2017-121101		Finance Manager	386
5	2017-121908		Quality Systems Manager	278
6	2017-214101		Industrial Engineer	257
7	2017-132401		Supply and Distribution Manager	199
8	2017-311801		Draughtsperson	196
9	2017-122105		Customer Service Manager	185
10	2017-311501		Mechanical Engineering Technician	175
11	2017-671208	2017-671208-5	Transportation Electrician	172
11	2017-671208		Automotive Electrician	
12	2017-122101		Sales and Marketing Manager	166
13	2017-121905		Programme or Project Manager	157
14	2017-132404		Warehouse Manager	138

Rank	OFO Code	OFO Specialisation	Description	Total
15	2017-132104		Engineering Manager	131
16	2017-134904		Office Manager	124
17	2017-311301		Electrical Engineering Technician	121
18	2017-132402		Logistics Manager	116
19	2017-651202	2017-651202-15	Welder	993
19	2017-651202		Spot Welder Operator	
20	2017-652301		Metal Machinist	644
21	2017-653306		Diesel Mechanic	630
22	2017-651302	2017-651302-1	Boiler Maker	497
22	2017-651302		Boilermaker-welder	
22	2017-651302		Boilermaker	
23	2017-432101		Stock Clerk / Officer	481
24	2017-721901	2017-721901-7	Product Assembler	424
24	2017-721901		Assembler\Metal Products (Except Mechanical)	
25	2017-652302		Fitter and Turner	410

The envisaged outcomes of the interventions are dependent on demand through the grants application process (for the programme type). For the most part interventions for management and professional occupations will be a bursary for a University qualification, whilst other occupations could also be supported by bursaries, work integrated learning and occupational learning pathways such as apprenticeships. Skills programmes and short courses tend to be utilised for part qualifications and learners who want to top up their skills.

In summary, interventions point to full qualifications in instances of a bursary, apprenticeship or learnership (although the learnership model also lends itself to modular learning in terms of acquiring skills sets). Skills Programmes would result in a part qualification and does give support to the finding of a higher need for workers with skills sets. All PIVOTAL interventions result in a full or part qualification aligned to NQF.

3.7 CONCLUSION

This chapter reflects on the categories of skills development needs in the merSETA sector that have been alluded to in the previous chapters. Skills challenges are of key importance as these tend to hamper the SETAs' efforts in terms of producing skills of the quality and volume required by the sector.

The Priority Skills list of occupations in high demand is also presented in this chapter as well as skills gaps that need to be considered. It should be noted that the methodology is limited, sector stakeholders recommend that vacancy data should not be a key input and that in addition to the statistical analysis, the value chain approach should be used to determine skills demand, process engineering plans should be reviewed and skills descriptors analysed to ensure that not only are the occupations in demand captured but also the skills required internal to the occupations – this is critical to understand the changing nature of occupations and the workplace with the advent of 4IR

Overall, a range of factors will impact on the future of skills supply and demand in the sector. These factors include future growth of the economy, the implementation of interventions aligned with national strategies including transformation, a demand for higher level skills in the sector and the demand for better the quality of skills supplied including skills gaps.

Interventions cannot only take into consideration skills that are listed in the PIVOTAL list of occupations in high demand, but the merSETA must also support skills that keep the sector going as well. Future skills must be researched more closely and interventions tailored to meet these needs must be implemented through special projects and innovations aimed at meeting industry needs.

Automation and technological advances require re-skilling, up-skilling and multi-skilling. Stakeholders have highlighted the demand for interventions fit for provision of skills for the future, but at the same time the sector must produce skills now for skills that are becoming redundant. Ultimately, merSETA must become ever more innovative regarding skills provision, taking on for itself agility and adaptability by better servicing both learners and employers. This requires leadership with respect to unpacking issues highlighted in this SSP and deliberating on acceptable approaches through current interventions and innovations as well as identifying key partnerships or projects to support sector demands.

Finally, there is need for up-scaled efforts to secure shared and inclusive growth, transformation of ownership and management control and empowerment through decent jobs, especially in labour-intensive sectors.

4. PARTNERSHIPS

4.1 INTRODUCTION

The NSDP 2030 sets out that its implementation cannot be achieved without the cooperation and participation of social partners and that the levy system should work to meet socioeconomic developmental needs of South Africa. It further elaborates that "action" and "implementation" should be a hallmark of all partnerships. The notion of a partnership in the SETA system should therefore transcend a transactional contract but rather an arrangement that works to the mutual benefit of all parties tied to the partnership. The SSP Framework developed by DHET in consultation with a SETA SSP working group (2019) have framed partnerships in the SETA system as, "a collaborative agreement between two or more parties intended to achieve specified outcome directed toward addressing mutually inclusive skills priorities or objectives within a specified time period". This frames partnerships as being time bound for a specific, measurable and mutually beneficial purpose.

A key directive of the NSDP is to locate SETAs as intermediary bodies; therefore, these bodies should broker relationships linking skills supply with sectoral skills demand, as such partnerships with government, business and labour are key. The benefits that are envisioned to be derived through partnerships for the PSET sector and the labour market, are largely aligned to national imperatives. The merSETA has built a responsive partnerships model with TVET colleges, HEIs, government, NPOs, companies, labour organisations and international organisations to promote the responsiveness of education and training to industry needs and changing trends.

This chapter will reflect on partnerships, outlining the nature of the partnership, the value of the partnership for the PSET system, successes, challenges, gaps and the potential to strengthen partnerships. The chapter will further highlight gaps to be addressed through new partnerships and elements required to ensure a successful partnership. Each and every partnership cannot be expressly stated in the chapter, however the comprehensive list of partnerships is attached as an annexure to the document.

4.2 EXISTING PARTNERSHIPS AT THE MERSETA

The existing partnerships presented in this section arises from an analysis of all current partnerships in the merSETA system. As at 31 March 2019, the merSETA reported on 110 partnerships to the Finance and Grants Committee who have oversight on all the partnerships in process.

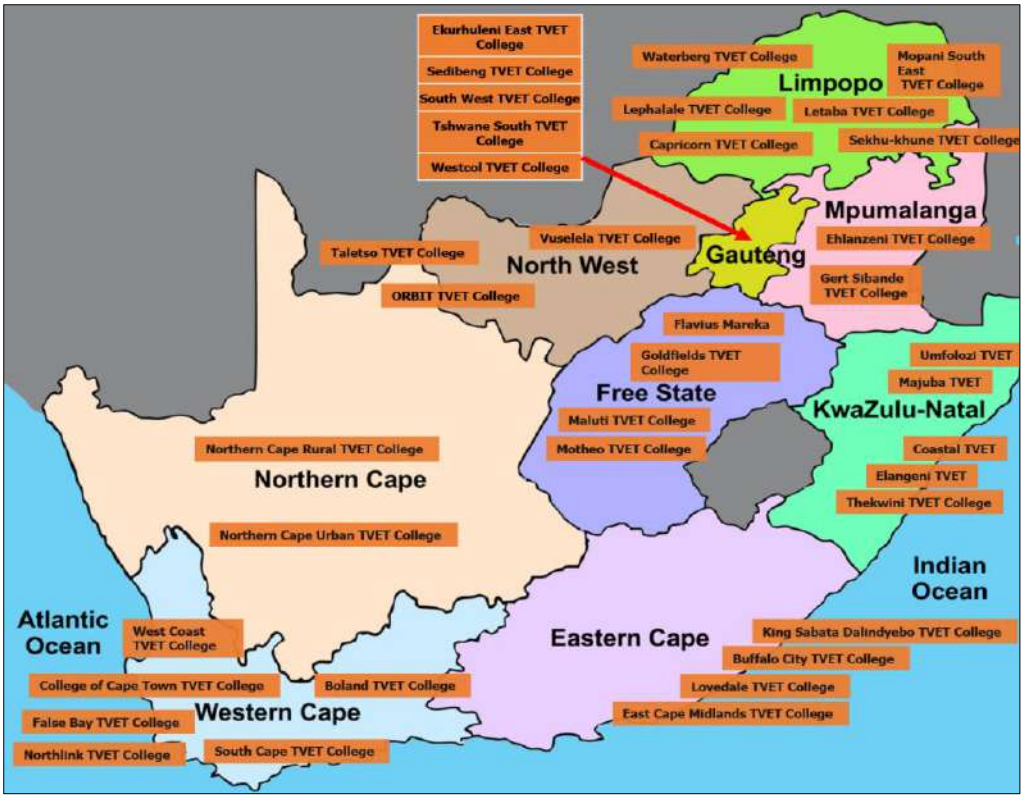
4.2.1 TVET College and Community College Partnerships

The NSDP positions TVET Colleges as critical institutions to develop skills and strengthen the economy. They however require support due to the large number of learners they must accommodate and the quality of skills required by the private sector. They rely on assistance to reach their potential in terms of improved capacity and quality.

The merSETA has entered into partnerships with the majority of TVET colleges (over 40 institutions). It has multiple agreements with some TVET colleges culminating in over 100 partnership agreements. The many of these partnerships focus on learning pathways towards learners progressing to become trade-tested artisans through bursaries, learnership and apprenticeship programmes. The partnerships have a national TVET college footprint in all nine provinces, inclusive of colleges in rural areas. On average these partnerships last around 3 years with the longest being 5 years and the shortest being 1 year.

Notable partnerships are those that focus on TVET quality improvement to support skills for 4IR, as well as reviewing training provision in line with changing trends. The merSETA and its partners also support the improvement of TVET colleges in terms of work integrated learning, testing models for a student driven association, cooperative learning to foster entrepreneurship, and key industry driven interventions to produce artisans with the relevant skills for industry.

Figure 22: Map of TVET Colleges who have Partnership Agreements with merSETA



These partnerships can present some challenges. Stakeholders have emphasised the need for government to get involved and support these institutions to deliver relevant skills to the sector. This requires policy review, budgetary review and skilled lecturers. There needs to be a diversification of TVET College provision which is responsive to industry however many SETA qualifications are not offered at public institutions, they therefore cannot deliver skills directly for industry in their mainstream provision.

The merSETA still needs to ramp up its support for Community Colleges to effectively support an integrated PSET system, having established a footprint in rural provinces already as well as supporting township economies, the next step would be to entrench an approach for community education.

4.2.2 National and Provincial Government Partnerships

The merSETA has entered into partnerships with national and provincial government entities in order to align to national priorities and assist with regional skills development interventions, particularly in rural provinces such as Limpopo, Mpumalanga and the North West Province. Focus areas of these partnerships include the following:

- Supporting youth to attain qualifications in the trades or engineering
- Supporting efforts of the UIF to assist employees whose employers are in distress to attain skills that will be worthwhile should they end up being retrenched
- Supporting the Department of Correctional Services to provide skills to inmates and offenders awaiting parole
- Supporting public works programmes for learnerships and apprenticeships in the merSETA scope of coverage
- Partnering with NSFAS to offer bursaries to underprivileged youth in the field of engineering
- Partnering nationally with the Office of the Premier in most provinces to provide skills opportunities through apprenticeships, learnerships and skills programmes

Ultimately, national partners assist in the areas of transformation, poverty reduction, social justice and rural outreach. These partners in collaboration with the merSETA are able to reach more needy beneficiaries and give skills opportunities to people across all provinces. A summary of these partnerships is provided in the table below.

Table 24: National and Provincial Government Partnerships

Partner	Scope Of Work	Average Duration (years)
Department Of Basic Education And Training	Unemployed Learners On Learning Programmes	**2**
Department Of Correctional Services	Funding of inmates and offenders awaiting parole on skills programs	**3**
Department Of Small Business Development	Support for co-operatives in townships & Support for rural SMEs and non-profit companies in terms of technical skills development. The DSBD/SEDA provides business support	**4**
Free State Department Of Education	Training Of Engineering Graphic And Design	**3**
Mpumalanga Department Of Education	Training unemployed Learners On Artisan Learning Programmes	**5**
NSFAS	Bursaries in Engineering	**2**
Office Of The Premier	Supporting Apprenticeships, Internships, Skills Programmes and small business development in the manufacturing and engineering sectors	**3**
Saldhana Bay IDZ	Apprenticeships & Skills Programmes	**5**
The Quality Council For Trades And Occupations (QCTO)	To develop occupational qualifications and part qualifications	**1**

These partnerships has resulted in very good outcomes for the learners and communities who participate, however there are some challenges with respect to bureaucracy in government departments which can result in delays. The merSETA support of the social economy (rural, village, township, informal sector) must be improved to see a bigger impact. The merSETA has therefore taken a decision to consider increasing internal capacity and increase its funding mechanisms to directly support SMMEs, cooperatives and informal enterprises. This will ramp

up the benefits to society. Social partnerships with provincial governments, communities, civil society and other social change entities that work with communities will also need to be strengthened.

4.2.3 Partnerships with Higher Education Institutions

The merSETA has entered into partnership agreements with Higher Education Institutions (HEIs) for numerous purposes. These include inter alia qualification development, research related partnerships, delivery of operational targets through bursaries related to the engineering and manufacturing sectors with a focus on transformation and empowerment of Black individuals who would otherwise not have the opportunity to further their studies.

As per the NSDP, the role of SETAs is to bring the education fraternity and industry closer together. From a national perspective this bodes well for sector development as well as for critical skills development in areas of research development and innovation. As a SETA grounded in vocational training, these partnerships also leverage support for the professional development of lecturers in engineering studies at TVET Colleges. Table 17 below, provides a brief summary of merSETA's HEI partnerships.

Table 25: Partnerships with Higher Education Institutions

Higher Education Institution	Scope of Work	Average Duration (years)
CAPE PENINSULA UNIVERSITY OF TECHNOLOGY	Funding of bursaries of unemployed students to achieve higher education qualifications.	1
	Supporting Engineering Diploma students to obtain their qualifications	3
	To support Chair a Engineering to conduct research, support postgraduate students and train school students in science, technology, engineering and mathematics.	2
CENTRAL UNIVERSITY OF TECHNOLOGY FREE STATE	Funding of bursaries of unemployed students to achieve higher education qualifications.	2
	To fund the university students to do Work Integrated Learning (WIL) in order to achieve their qualifications. To enhance partnership with the university.	2
	To support Chair in Engineering in Commercialisation of Additive Manufacturing.	2
	To support Chair in Engineering to conduct research, support postgraduate students and train school students in science, technology, engineering and mathematics.	2
	To support Operation Phakisa (marine engineering) in terms of Marine Engineering curriculum development, establishment of marine engineering within the university and staff development.	2
CUT SERVICES AND ENTERPRISES TRUST-FREE STATE	Funding of bursaries of unemployed students to achieve higher education qualifications.	1
DURBAN UNIVERSITY OF TECHNOLOGY	To fund the university students to do Work Integrated Learning (WIL) in order to achieve their qualifications.	3
	Workplace experience for students P1&P2	3
MANCOSA (PTY) LTD	Supporting 40 black females, employed by merSETA companies, in their managerial career paths in the manufacturing and engineering sectors.	1
MANGOSUTHO UNIV OF TECHNOLOGY	To fund the university students to do Work Integrated Learning (WIL) in order to achieve their qualifications. To enhance partnership with the university.	3
NELSON MANDELA UNIVERSITY	Development of TVET Lecturers and trainers	3
	Funding of bursaries of unemployed students to achieve higher education qualifications.	0
	Skill for Industry 4.0	1

Higher Education Institution	Scope of Work	Average Duration (years)
	To support Operation Phakisa in terms of Marine Engineering curriculum development, establishment of marine engineering within the university and staff development.	2
	To support skills development learning programmes and Chair in engineering support. Partnerships with, TVET colleges and universities.	2
NORTH-WEST UNIVERSITY (NWU)	To support the research activities related to metal 3D printing, high school student training in science, technology engineering and mathematics and postgraduate bursaries.	3
RHODES UNIVERSITY	Various Programmes	3
STELLENBOSCH UNIVERSITY	Funding of bursaries of unemployed students to achieve higher education qualifications.	0
	The particular partnership focus on the P1/P2 WIL component of the curriculum to qualify with a Diploma in Engineering.	1
TSHWANE UNIVERSITY OF TECHNOLOGY	Funding of bursaries of unemployed students to achieve higher education qualifications.	1
	Various Programmes	3
UNIVERSITY OF WESTERN CAPE	Professionalization of TVET Lecturers from PGDipTVET and upwards; strengthens merSETA's response to the DHET Policy on Professional Qualifications for Lecturers in Technical and Vocational Education and Training gazetted in 2013.	6
UNIVERSITY OF CAPE TOWN	Funding of bursaries of unemployed students to achieve higher education qualifications.	1
UNIVERSITY OF JOHANNESBURG	Funding of bursaries of unemployed students to achieve higher education qualifications.	1
	Funding of bursaries of unemployed students to achieve higher education qualifications.	1
	To provide BTech, Masters and PhD bursaries in engineering related fields.	4
UNIVERSITY OF PRETORIA	Funding of bursaries of unemployed students to achieve higher education qualifications.	1
	To support Operation Phakisa (marine engineering) in terms of Marine Engineering curriculum development, establishment of marine engineering within the university and staff development.	1
UNIVERSITY OF SOUTH AFRICA	Developing and indigenous career guidance framework for the MER-Sector aimed at improving the quality of career guidance for youth and adults	3
	The particular partnership focuses on the P1/P2 WIL component of the curriculum to qualify with a Diploma in Engineering.	2
UNIVERSITY OF THE FREE STATE	To support the research activities, school teacher training in technology, green building index and offer postgraduate bursaries.	3
	To support the training of schools and TVET on new technology related to Industry 4.0 and conducted research on green manufacturing and building index.	3
UNIVERSITY OF THE WESTERN CAPE	Extended Curriculum Programmes	1
	To support the Interactive Digital Centre establish a virtual 3-D learning platform, Digital School and an App Development Laboratory	4
UNIVERSITY OF THE WITWATERSRAND	Funding of bursaries of unemployed students to achieve higher education qualifications.	1
	Create part-time learning pathways, graduate placement, targeting talent programme and tutor support.	3
UNIVERSITY OF VENDA	To support skills development learning programmes and Chair in engineering support. Partnerships with, TVET colleges and universities.	3
	To support the research activities and offer postgraduate bursaries.	3
VAAL UNIVERSITY OF TECHNOLOGY	Funding of bursaries of unemployed students to achieve higher education qualifications.	1
	To fund the university students to do Work Integrated Learning (WIL) in order to achieve their qualifications.	5
WALTER SISULU UNIVERSITY	To assist the university to re-align all engineering programmes according to the revised national qualifications policy and to offer post graduate engineering qualifications; To provide bursaries and mentorship to lecturers at the institution to	4

Higher Education Institution	Scope of Work	Average Duration (years)
	complete their Masters and PhD qualifications; To strengthen research capabilities of the university in identified areas. All of these work streams are linked to the Strategic Plan of WSU.	

A key improvement in terms of the HEI partnerships would be for greater participation or involvement of industry partners, particularly with respect to research and development required to ensure production processes are on a par with international standards. Stakeholders from the merSETA have relayed concern that South Africa lags behind in terms of skills and qualifications required for new technologies and sophisticated production processes. An example of this relates to the auto sector which is comprised of large multinational OEMs who require the highest quality in terms of automotive assembly and components for vehicles.

4.2.4 International Partnerships

The merSETA has partnered with international agencies in an effort to keep abreast of developments in key sectors to assist in the development of national apprenticeship training as well as experiential learning. This is also part of the merSETA strategic focus areas of tapping into international thought leadership forums and leveraging research produced and models developed in order to build innovation, research and development (IRD) cabability in the sector. There are currently two such partnerships:

Higher Education Institution	Scope of Work	Average Duration (years)
BRITISH COUNCIL	To link selected TVET colleges with United Kingdom colleges in terms of curriculum development, management capacity building and TVET lecturer development.	2
CHINESE CULTURE AND INTERNATIONAL EDUCATION EXCHANGE CENTRE	To offer the TVET students internship in China through undergoing training at Chinese Institutions and work placement on Chinese companies.	2

The merSETA has found these partnerships particularly successful with learners returning and entering employment due to the advantage of having been exposed to international best practice. Opportunities to expose learners on an international platform will bear great rewards for the domestic market. VW South Africa relayed their support of this type of model as they too ensure that workers acquire internationally recognised (OEM approved) skills interventions to meet the skills needs to produce new vehicle models in South Africa[12].

4.2.5 Research 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 based on informed decision making 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

[12] Stakeholder Interviews, 2018

demonstrates research through a partnership delivery model to inform skills planning, sectoral trends and innovations which will help the sector keep pace with 4IR in terms of its service delivery offering.

Table 26: Partnership delivery model

Research Type	Service Provider	Scope of work	Average Duration (years)
Chamber Research: Research is critical to skills planning and merSETA considers its Chambers as partners in its efforts to provide better interventions for each of the sub-sectors.	PLASTICS FEDERATION OF SA	Plastics Qualifications in HEIs: What is the shortfall or lack of plastics technicians and plastics engineers	1
	SEIFSA	Artisan skills Imbalances in the Metal industry and artisan recognition of prior learning to address potential shortages	0.4
Evaluation Studies	BRAND FISCHER MOGENSEN	The purpose of the study is to evaluate the Persons with Disabilities (PwD) project	1
	F R RESEARCH SERVICES	Evaluation of the Training Layoff scheme	1
	MZABALAZO ADVISORY SERVICES	To evaluate the efficiency and impact of the merSETA artisan pathways leading merSETA trade qualifications (learnerships, apprenticeships, NCV 4 to artisan,ARPL)	2
Innovation and Applied Research	CAPE PENINSULA UNIVERSITY OF TECHNOLOGY	Developing a Skills 4.0 approach to the current apprenticeship models through applying technology to make apprenticeships more attractive to SMEs	2
	CSIR	Developing a Skills 4.0 approach to the current apprenticeship models through applying technology to make apprenticeships more attractive to SMEs	2
Strategy & Research	JOINT EDUCATION TRUST EDUCATION SEVICES (JET)	To establish an integrated digital ecosystem that will strengthen, integrate, coordinate and improve efficiencies through governance and management of the PSET data, information and knowledge ecosystem	5
	GREEN YOUTH PROGRAMME	Green Youth Entrepreneurship Programme	1
Skills Planning	HUMAN SCIENCES RESEARCH COUNCIL	To understand the role of training and skills in structural transformation with a focus on Black Industrialists	1
	NELSON MANDELA UNIVERSITY	To research and implement solidarity models for TVET college students through a student driven association	3
	NELSON MANDELA UNIVERSITY	Researching education advancing entrepreneurial livelihoods of youth in the Eastern Cape	2
	REDFLANK SOLUTIONS	Skills demand and supply	1
	MZABALAZO ADVISORY SERVICES	Skills demand and supply	1
	STELLENBOSCH UNIVERSITY	To update the Green Skills survey that was completed in 2012 and establish the current context of the Green Agenda in terms of stakeholder understanding and strategies to address issues as per the circular economy	2
	UNIVERSITY OF THE WITWATERSRAND	To provide a reference guide of occupations and jobs that are in demand	1

Research Type	Service Provider	Scope of work	Average Duration (years)
		in the mer sectors. Elaborates on current demand, occupations that are becoming redundant as well as provide a future outlook.	
	DPRU	To understand the role of economic complexity in the sector with a focus on the role of SMMEs	2

4.2.6 Planned Partnerships

New partnerships require additional attention through an integrated formalised approach to unpacking the key areas of development which require interventions through a formal partner relationship. New partnerships are envisioned for effective planning and interventions as per the SETA Strategy.

- The merSETA will build skills development support for small, cooperative and informal sector enterprises through partnerships with government agencies and civil society, particularly with respect to addressing youth unemployment and empowerment of communities in townships and rural areas. The merSETA will have to review its primary research recommendations with respect to youth entrepreneurship in township economies as well as findings which will emanate from a research project that looks at entrenching cooperative learning as part of the TVET curriculum to develop and scope a meaningful partnership in this regard.
- The merSETA will also ensure that it commits to the supporting of engineering candidates to reduce the difficulties in becoming registered engineers.
- Partnerships to strengthen integration in the PSET, a partnership discussion is currently under way with the DHET to review systems among the PSET fraternity to find efficiencies for skills planning and monitoring.
- International partnerships should be established to promote thought leadership with respect to skills development, possibly benchmarking skills planning methodologies, innovations in terms of skills interventions and sectoral best practice.

4.3 PARTNERSHIP SUCCESS FACTORS

The partnership model adopted by the merSETA is one that is responsive to sectoral and national imperatives. TVET colleges, HEIs, government, NPOs, companies, labour organisations and international organisations are key collaborators in ensuring that the merSETA not only meets its mandate but exceeds the expectations to effect a real impact in the sectors it serves.

Notable project which yielded successes include the Centres of Excellence; the support to the East Cape Midlands College in collaboration with the CSIR to establish a learning factory that will lead to innovation, transformation and skills development for 4IR and other priorities for the TVET system; support to Walter Sisulu University with respect to industry responsive engineering curriculum and the associated academic development of engineering lecturers (masters and PhD).

When considering research, planning, monitoring and evaluation, the merSETA has built a strong internal research capability complemented by a network of strong research partnerships with HEIs and research organisations such as HSRC, CSIR, JET, DPRU, University of Stellenbosch, NMU, UWC, UJ and Wits.

The merSETA values its partnerships with its Chambers through their research and innovation projects which strengthen the research network to include employers and labour more deliberately in planning.

Transformation and inclusive economic growth continues to be a key focus, to this end the merSETA has seen great success in the Black Female Management Development project which is now in its third phase with MANCOSA as the implementation partner. In this current round there are 40 company nominated females on the project, enrolled for NQF 6 or NQF 8 management qualifications.

International partnerships have been immensely successful, the Chinese internship project now in its second phase has supported 200 TVET college and university graduates to participate in work-based internships in China. Those from the first cohort have also been successful in their workplaces and found great value from their participation in the project.

4.4 CHALLENGES EXPERIENCED WITH PARTNERSHIPS

Partnerships have presented the merSETA with some challenges that are worth mentioning. Through various interventions that will be discussed in the following section, the merSETA has come up with mitigation strategies to deal with these challenges. The challenges identified include:

Table 27: Partnerships and Mitigation Strategy

PARTNERSHIP CHALLENGES	EXPLANATION
Lack of Implementation	Lack of implementation or slow implementation usually arises due to one or more partners not being fully committed or engaged to see the partnership through.
Bureaucracy	Partnerships with particular types of entities can cause delays, hamper the traction for certain deliverables and overall cause the partnership to suffer delays, non-implementation or poor quality outputs
Inability of partners to justify tranche payments with evidence	Well-constructed partnership agreements will have a set of deliverables attached to a payment, however partners may struggle to provide evidence that work was adequately completed.
Poor monitoring and project management due to a lack of understanding with respect to roles and responsibilities of partners	This has resulted in some projects failing to be completed on schedule without any valid reason, poor project reporting, and poor implementation and monitoring of projects.
Poor capacity of the TVET college or HEI to support and supervise the learners	Lack of the availability of suitably qualified Professors (PhD/DPhil), senior lecturers to lead the programmes. Committing to too many learners on a programme with limited capacity to supervise or teach impedes learner progression and success.

PARTNERSHIP CHALLENGES	EXPLANATION
Difficulty in recruiting qualified candidates into HEI programmes	This is mainly due to limited capacity to avail suitable qualified professors as well as parameters placed on the institution to deliver tailored outputs for the mer sector.
Institutions are flooded with requests for partnerships and therefore over-commit	The establishment of SETA funded research chairs as well as a multitude of other projects with donors reduces capacity to deliver good quality outputs in time.

In order to mitigate partnership challenges the merSETA have identified the following:

- A **well-constructed agreement** between the partners is essential to ensure that all the partners understand their roles and responsibilities
- **Good project management practices** such as clear project conceptualisation (scoping the project), ensuring the inception phase of the project is used to iron out all concerns and ensures a realistic work schedule, project finance management, project risk management and project time management are important to ensure the success of partnerships.
- **Qualified project leaders should be identified** along with a steering committee to ensure the partnership stays on track.
- **Partners should demonstrate commitment** to the envisioned outcomes of the partnership before signing the agreement.
- **Monitoring and evaluation** is an important element that needs to be built into all partnership agreements.
- **Recruitment of learners** on partnership programmes requires adequate attention, the training institution should have mechanisms in place for learner support.
- **The role of industry in partnerships needs to be emphasised** as it is the industry that provides workplace learning opportunities.

Furthermore, the merSETA has produced an evaluation plan for implementation in the current financial year which details studies that will be undertaken to further strengthen the merSETA interventions. To this end the study will evaluate the effectiveness and efficiency of Higher Education Institution (HEI) partnerships within the merSETA and determine best practice to manage these partnerships. In addition a project is planned to understand the reasons for non-implementation of projects/partnerships.

4.5 CONCLUSION

For the merSETA, partnerships are a mechanism for achieving its strategic objectives and to deliver high quality services to its stakeholders and learner beneficiaries. The merSETA has established through partnerships a national footprint for implementing skills development initiatives contributing towards the revitalisation of technical-vocational education and training (TVET) which includes improving the competence of lecturers, trainers and teachers to provide work relevant skills intervention.

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.

5. SETA MONITORING & EVALUATION

5.1 INTRODUCTION

The merSETA adopted a Monitoring & Evaluations (M&E) framework in 2016. This framework was developed to improve both the operational and organisational performance as well as to track the results and the impact of its skills development interventions. This chapter is about reflecting the merSETA's approach to M&E and assess how through this approach skills planning is supported to address strategic priorities as set out in the merSETA SSP. It will also recommend strategies to improve efforts to meet these priorities or strengthen the momentum to reach desired outcomes. The merSETA has implemented and continuously maintaining a Quality Management System in line with ISO 9001:2015 international standard to strategical benchmark, provide guidance and support to the merSETA in ensuring that the strategic planning goals and objectives are in line with the merSETA Quality objectives. Measurement, monitoring, analysis, and evaluation are critical for the assessment of the performance of the quality management system (QMS). This is critical in supporting the merSETA in meeting its stakeholder and regulatory requirements as well as improving its effectiveness and efficiency on a continuous basis.

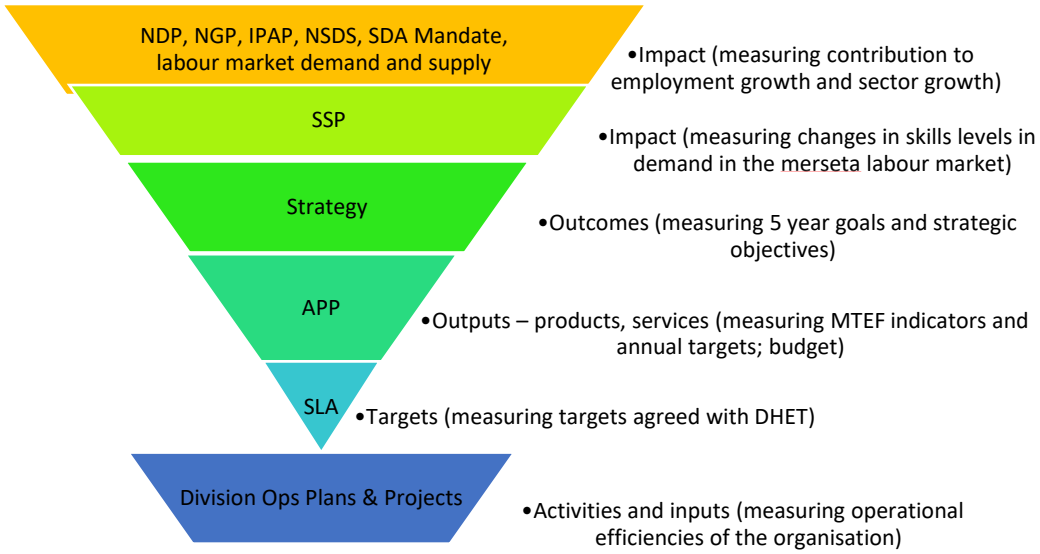
5.2 THE MERSETA APPROACH TO M&E

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 which means that all divisions and divisional units have a role to play as well as the AA and its Committees. The purpose of the framework is to:

- Track and measure change;
- Assess quality, effectiveness, efficiency and impact of skills development interventions and projects;
- Ensure organisational efficiency;
- Integrate various existing monitoring, reporting and evaluation policies, processes and systems under a single framework;
- Guide the process of identifying, collecting, verifying, storing and reporting performance information (quantitative and qualitative) on a regular basis; and
- Guide decision making and ongoing planning.

The custodians of the M&E Framework is the Strategy and Research Division which is responsible for quarterly monitoring reporting, however all individual units play a role in implementing good practice. The framework envisions a holistic approach to M&E which goes beyond the compliance reporting of performance. It suggests a results based approach across all operational units to track and measure change.

Figure 23: Levels of M&E in the Skills Development Ecosystem



The diagram demonstrates the key mechanism needed to effectively carry out M&E within the SETA mandate, starting with the broad base of national strategies and priorities and SETA skills policy mandate, cascading down through strategic planning processes to operational plans and processes (the actual work). It shows how each level requires M&E to assist in producing the results envisioned at a national level. Monitoring and evaluation is therefore key in strengthening governance, administration and accountability as reiterated in the NSDP and other frameworks such as the Government Wide Monitoring and Evaluation Framework.

5.3 USING INFORMATION TO SUPPORT RESEARCH AND SKILLS PLANNING

The merSETA by virtue of its intermediary mandate must bring the worlds of work and education together for the benefit of the labour market in terms of the current skills supply as well as the pipeline of future supply. In order to do this effectively and credibly, the SETA must consider revising its research agenda and research approach and methodologies to support and strengthen planning. This activity is underpinned by a review of the SETA performance by management, the Accounting Authority and its sub-committees using the following mechanisms:

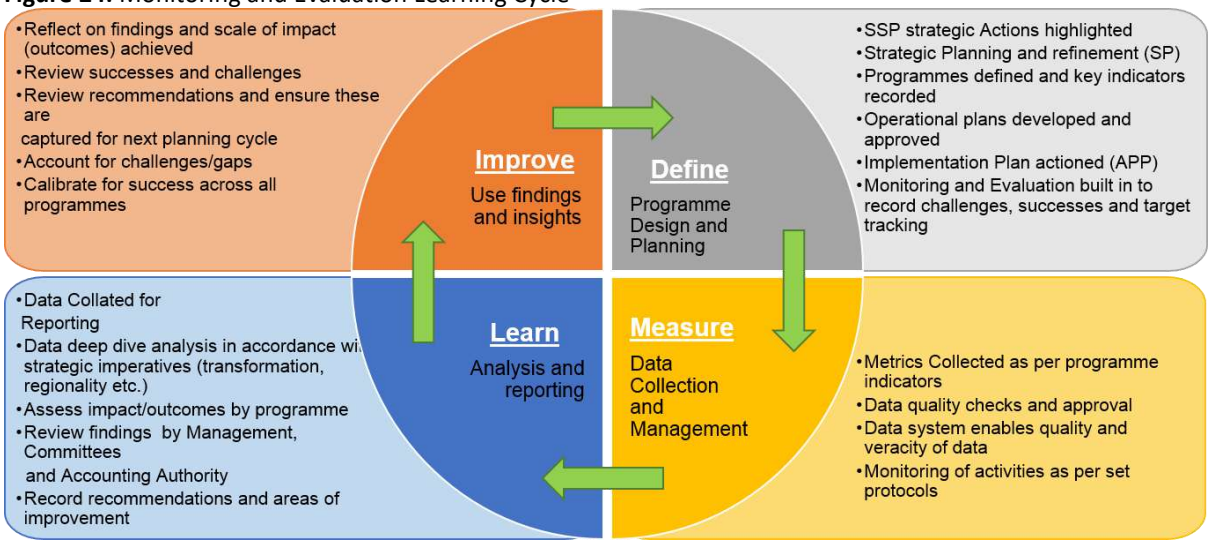
- Quarterly monitoring reviews;
- Accounting Authority Strategic Planning Session
- Governance & Strategy Committee oversight of research, planning and reporting
- Review of annual performance, gaps and reasons for either under or over achievement
- Updated research agenda and evaluation plan
- SSP development and update
- Strategic Plan and Annual Performance Plan Updated

Already, the merSETA has aligned its strategic units under one strategic planning unit to ensure that planning, research, monitoring and evaluation as well as quality systems are housed under one roof. It should be noted that the merSETA Quality Management System (QMS) is a line of defence, ensuring that risk managements activities are incorporated into the planning process this is in turn monitored for successful achievement of the merSETA

strategic goals and objectives. The sector skills planning unit brings all research into the sector skills plan to derive key strategic actions which are then unpacked by the Accounting Authority and culminates in an updated strategic plan. Together with the monitoring and evaluation unit, knowledge management and quality management systems, protocols for quality data flows and monitoring of data are set in place. The QMS unit is a vital support as it develops processes that support internal monitoring by applying quality principles, audits assessments and corrective action measures to address any gaps and improvement of the merSETA wide strategic planning. The knowledge management unit is responsible for capturing, documenting and sharing the lessons learnt from evaluation results and other research initiatives. The unit also ensures that the communication phase of the evaluation is a two-way process designed to support use of the evaluation results for program improvement and decision making. The unit also continuously monitors and documents developments and trends that have and impact in the sector to strengthen planning and decision making.

The monitoring and evaluation activities can be captured in the graphic below. It represents the cycle that the organisation uses to enable it to learn continuously and calibrate for success due to its cyclical nature. Ideally this model ensures that a learning culture is instilled within the organisation to ensure development and continuous improvement while also ensuring accountability.

Figure 24: Monitoring and Evaluation Learning Cycle[13]



These mechanisms allow the merSETA to not only monitor its achievements but also allows for collaboration across management structures, the Accounting Authority and implementing units in line with the overall Strategic Plan.

The operations division is responsible for the (bulk of) actual data collection within the parameters of the guidelines, standard operating procedures and policies guiding all merSETA operational processes (these efforts are also coordinated in collaboration with the quality management systems unit as well as the monitoring and evaluation unit). Data are analysed and collated for reporting (this is inclusive of performance information, partnership reports,

[13] adapted from http://askinyathelo.org.za/using-monitoring-evaluation-learning/

research reports and management reports), learnings are assimilated across the major programmes by the strategic planning unit and are further assessed by sub-committees of the Accounting Authority. These Committees then make recommendations for deliberation by the Accounting Authority and the cycle starts again for continuous improvement and learning.

Having reviewed strategic priorities the following matrix is presented to demonstrate how research projects in particular are set up to address strategic priorities. The matrix demonstrates current and new partnerships that have been set up to address priorities in the current year and some of these extend into the 2025 year period.

Table 28 merSETA response to strategic focus areas 2019/2020

merSETA Partnership/Project	Description	Strategic Focus Area			
		4IR & Innovation	Curriculum Change	Structural transformation	Governance & Resourcing
Research Partnership: CIPSET Nelson Mandela University (NMU)	Establish a student driven association and embedding a solidaristic model into the curriculum of TVET students		x	x	
Research Partnership: Youth Entrepreneurship in the informal sector	To understand the livelihoods of youth operating informally in township economies and their skills needs		x	x	
Green Skills Partnership: University of Stellenbosch	Understanding the nature of the green economy in relation to mer sectors and green occupations of the future	x	x	x	
Atlas of Occupations for the mer sector: Wits REAL	Understanding the nature of key occupations for the sector and how they will change in the future	x	x		
Black Industrialist Research: HSRC	Understanding the skills needs of Black industialists in the context of 4IR	x	x	x	
Economic Complexity: DPRU UCT	Understanding economic complexity and the role of SMMEs in a complex economy	X	x	x	
Evaluation Studies	Evaluating merSETA Skills Interventions and their impact	X	x	x	x
Assessment of the current state of Enterprise content Management (ECM) as well as Information Communication and Technology (ICT)	Assessment to develop a staus report and a roadmap to guide the institutionalisation of ECM and a digital transformation strategy. The assessment is also expected to help identify some of the challenges in ICT service management and governance.	X			X
Feasibility study of the Post-School Education and Training Collaboration Learning Opportunities for the Utilisation of Data (PSET CLOUD)	Establish an integrated digital ecosystem that will strengthen, integrate, coordinate and improve efficiencies through governance and management of the PSET ecosystem.	X			x

The results of these project and partnerships will feed into the monitoring and evaluation learning cycle as described to further enhance the research and planning processes.

5.4 STRATEGIC PRIORITIES CAPTURED IN THE STRATEGIC PLAN AND ANNUAL PERFORMANCE PLAN

The strategic priority actions that were identified in the 2019/20 SSP update to guide further planning are summarised below.

- Automation of production processes impacting on current employees especially operators and elementary workers calls for a survey of workers' skills needs so as to inform the reskilling and upskilling interventions to be implemented to minimise job losses.
- Transformation remains a key imperative for skills development of managerial, professional, technician and artisanal occupations with regard to race and gender, and for all occupational groups with regard to people with disability.
- Informal businesses need to be supported to become formal registered business, such as small enterprises or cooperatives. The merSETA should work together with other state agencies to develop an ecosystem approach whereby support includes not only training, but also access to: finance, operational efficiency support, markets and value chains of the merSETA industries.
- Future skills for circular, advanced manufacturing and Industry 4.0 should be researched to inform the development of new career pathways and skills development responses that will: prepare current employees for changing careers; attract and skill youth for new occupations and careers; and, skill business owners especially small and medium sized enterprise so that they are enabled to take up opportunities in growth areas such as plastics, motor, new tyre, metal renewable energy and chemical; which are also supported by incentives and schemes of different government strategies for re-industrialisation and localisation IPAP and SIPs being examples of such strategies.
- Government strategies skills needs must be unpacked. The merSETA must engage the responsible departments with the view to implementing mega skills development projects for the strategies, inclusive of those for rural development and the urban economically marginalised.
- Curriculum research and development based on deep understanding of changing production processes must be implemented to steer the delivery of education, training and skills development for merSETA industries.
- Career development, advice and support for the flexible labour market implied by the advent of advanced manufacturing and Industry 4.0 must be put in place

The strategic priorities which laid the foundation for the Accounting Authority strategic session outcomes which were captured in the merSETA Strategic Plan and Annual Performance Plan are discussed next. The merSETA is also implementing several projects and programmes to address these priorities. Ongoing monitoring and evaluation of these programmes has been identified as critical in ensuring that these strategic priorities are met. Internal and other reporting mechanisms to the merSETA Accounting Authority and its sub-committees have been developed for effective monitoring of implementation.

- Supporting **structural transformation** (ownership, control and management) through promoting entrepreneurship, SMMEs, localisation and uplifting the role of the manufacturing sector in inclusive growth. The merSETA has a pivotal role to play in

supporting key priority sectors (automotive, plastics, metals etc.) and national imperatives such as the black industrialists scheme identified in the IPAP and other national strategies. The merSETA role is to be proactive and ensure that skills development is an integral component of the planning and implementation of government initiatives aimed at structural transformation of the manufacturing economy. To this end the merSETA must approach the relevant government departments and agencies to establish a collaboratively developed skills framework to support growth and development strategies for mer-sector manufacturing.

In response, the merSETA has entered into a research partnership with the HSRC to understand the skills development needs of Black Industrialists in the context of supporting structural transformation in the 4th industrial revolution. The merSETA has also entered into a partnership with the DPRU to understand economic complexity in the context of structural transformation in the manufacturing, engineering and related services sectors (mer sectors) with a particular interest in the role that SMMEs can play in achieving better economic outcomes for the sector.

The merSETA through the Black female management project will support 40 black females, employed by merSETA companies, in their managerial career paths in the manufacturing and engineering sectors to obtain accredited NQF 6 or 8 qualifications in management. This is critical in transforming the manufacturing sector which is male and white dominated.

The merSETA's support of the social economy (rural, village, township, informal sector) is still weak despite several initiatives in place such as that with the Department of Small Business Development. The merSETA has therefore taken a decision to consider increasing internal capacity and increase funding mechanism to support SMMEs development and the social economy. Social partnerships with provincial governments, communities, civil society and other social change entities that work with communities will therefore need to be strengthened.

- Developing **Skills 4.0 / Future Skills** is also critical for supporting the responsiveness of the sector to Industry 4.0 and re-industrialisation efforts of government. Industry 4.0 calls for the need to train highly skilled workers that are technology savvy as well as other soft skills identified to enable flexible career development for the changes resulting from Industry 4.0 and advanced manufacturing broadly. Re-skilling and up-skilling of workers is therefore a priority for the sector given the high number of semi-skilled and unskilled workers in the current labour force as well as redirecting the education and training of new entrants to meet the occupation skills requirements of Industry 4.0.

  The merSETA has responded by implementing initiatives using a 4IR paradigm to re-imagine and develop a high quality new apprenticeship skills development process in South Africa that is more efficient, accessible, and scalable and that prepares apprentices for Industry 4.0. The partnership with the CSIR for example aims to develop a Skills 4.0 approach to solve problems regarding current apprenticeship models through applying technology to make apprenticeships more attractive to SMMEs, through incorporating informal and rural learners, through enhanced quality of learning teaching and workplace

interaction, and through modifying learner behaviour towards self-directed milestone-structured learning pathways.

The future skills in manufacturing project also focuses on future Skills advocacy so as to ensure continuous awareness and upgrading of future skills capabilities through implementing innovative skills development solutions such as Virtual Reality (VR), tactile career guidance and future skills lecturer development programmes and skills competitions in partnerships with BRICS member countries and public sector institutions.

- The imperative for the merSETA to influence **curriculum change** and **innovation** now for the education and training system (both institutional and workplace based learning) for the business of Industry 4.0 and advanced manufacturing should be actioned with the merSETA being the intermediary that ensures collaboration of social partners especially that of business, labour and government and the education and academic institutions. Where appropriate, given developments across the globe in both developed and developing economies, the merSETA should acquire and adapt approaches, methodologies, skills and knowledge already implemented.

  The merSETA is working with industry, the QCTO, HEIs and other players to promote innovation. The merSETA for example, entered into a partnership with the Nelson Mandela University to support Operation Phakisa (marine engineering) in terms of Marine Engineering curriculum development, establishment of marine engineering within the university and staff development. The merSETA has also entered into a consortium with SARETEC, the CSIR and QCTO to develop new occupational qualifications and material to support the development of a Skills 4.0 approach to solving problems regarding current apprenticeship models through applying technology to make apprenticeships more attractive to SMEs. The merSETA supports lecturer development and has partnerships with UWC and NMU for the post graduate diploma and advanced diploma as well as post graduate degrees up to PhD. The advanced diploma with NMU targets both current and potential new lecturers covering 7 colleges across Limpopo, Kwa-Zulu Natal, Eastern Cape, Western Cape and Northern Cape.

- Promoting **innovation** in responding to socio-economic, technological and other developments such as the 4th Industrial Revolution, structural transformation agenda of the state, the circular and green economy is also critical. The merSETA has a role to play in supporting skills and knowledge development for local innovation capability through tapping into local and international thought leadership forums, leveraging research produced and models developed in order to build innovation research and development capability in the sector.

  Several of merSETA initiatives respond to the need to promote innovation in its approach to addressing skills development challenges as well as responding to opportunities and challenges brought by 4IR. To improve the responsiveness of the PSET system in the 4IR, where big data and data analytics have become a key driver, the merSETA partnered with JET education services, an independent non-profit organisation to investigate the feasibility of establishing an integrated digital ecosystem that will strengthen, integrate,

coordinate and improve efficiencies through governance and management of the PSET ecosystem.

Moreover, through a partnership with the Chinese Cultural Centre, the merSETA offered 200 TVET students internships in China through undergoing training at Chinese Institutions and work placement on Chinese companies with a focus on smart manufacturing.

To effectively respond to the 4IR, the merSETA needs to strengthen its local networks, international networks, learning networks and support of Innovation, Research and Development in HEIs to build innovation capability.

- Conceptualising **partnerships** that support innovation, structural transformation, skills 4.0 and the circular and green economy is also critical for the merSETA. To date the merSETA has 16 partnerships with universities, TVET colleges, basic education, public entities that address directly skills for Industry 4.0 or lay foundation for the delivery of Skills 4.0 skills. These partnerships have been instrumental in addressing skills priorities for structural transformation, skills 4.0 and innovation. Gaps however still exist (see chapter 4). Some of the gaps require that the merSETA collates best practice models that have been developed through some of its partnerships and systematises these across all partnerships of the organisation in line with its new priorities as well as in support of new priority areas identified in the NSDP.

- In strengthening **governance** and **resourcing**, the need to build internal capacity, robust systems, processes, procedures and other mechanisms in order to promote better planning, decision making and operational efficiency was identified as essential. In positioning itself for effectively responding to the NSDP, the merSETA is in the process of reconstituting its chambers to promote their responses to industry and worker needs through considering the value chain approach or other best practices in driving the implementation of the NSDP. Other considerations that have been discussed include bolstering internal capacity to support critical sectors such as SMMEs, TVET colleges and community colleges. The need to review the merSETA grant and funding mechanism to respond to the changing priorities has also been at the top of the agenda.

5.5 STRENGTHENING EFFORTS TO MEET IDENTIFIED PRIORITIES

The merSETA for the most part is able to account for achievements against identified priorities however the extent to which those efforts have made an impact in the sector and the economy at large would need to incorporate more extensively mechanisms for monitoring and evaluation, particularly with respect to the learning cycle and the recording of success factors and constraints to achieving desired outputs. In addition, the quality of provision to the sector is also of key importance as highlighted in chapter 3.

The merSETA M&E framework does propose models to achieve these, particularly through the evaluation of projects and programmes. The merSETA has developed an evaluation planning approach which identifies on a yearly basis programme evaluations to measure the components as outlined in the table below:

Table 29: Key components to consider in strengthening actions to meet identified priorities

Key components to consider for Skills Interventions	Meaning
Relevance	Extent of alignment to strategic outcomes and national priorities
Effectiveness	A measure of the extent to which interventions/projects/programmes and partnerships achieve the specific objectives it set
Efficiency	An indication of whether the input (in terms of required resources, time, equipment etc.) is appropriate in terms of the output
Impact	Whether the interventions/projects/programmes made a difference in terms of the situation it was intended to address
Equity	Does the interventions/projects/programmes address demographic inequalities (contributing to the transformation of the economy)
Sustainability	The benefits of the interventions/projects/programmes will likely continue beyond the lifespan of the interventions/projects/programmes

Thus far the merSETA have evaluated the following programmes:

- The Persons with Disabilities Programme;
- The Training Layoff Scheme;

Evaluations that are currently under way include the following:

- Pathways to achieving Artisan Status
- The Retrenchment Assistance Programme

Planned evaluations include inter alia:

- Evaluation of Lecturer Development Programme
- Evaluation of merSETA partnerships
- Evaluation of discretionary grant allocations and implementation of proposals

In essence, the merSETA still has some work to do in institutionalising its M&E programme by reviewing an implementing tools for measurement and monitoring of activities to make a positive impact on the sector, the larger economy and South Africa as a whole.

5.6 MEASURES TO STRENGTHEN ACHIEVEMENT OF SKILLS PRIORITIES

Inadequate mechanisms for the efficient management of data, information and records were identified as one of the gaps in merSETA bid to institutionalise an organisation wide monitoring and evaluation framework. A data management and governance framework is therefore critical in strengthening the quality of data capturing, storage, management and use for accurate reporting, planning, decision making and increasing operational efficiency. To address this, the merSETA has adopted an integrated approach to Enterprise Content Management (ECM). An integrated approach to ECM will strengthen the ability of the SETA to harness and streamline all its data, information and knowledge resources that reside in various channels such as records, documents, information management systems, social media platforms, the website and stakeholder management system.

5.7 CONCLUSION

This chapter has outlined the merSETA approach to Monitoring and Evaluation. It demonstrates that the while there is a good grounding for the role of M&E in the organisation, there is still some improvements required to fill the gaps in the system particularly with

respect institutionalising the M&E, reviewing and putting in place effective mechanisms and tools for monitoring, measuring and evaluating outcomes and impact. Together with organisation wide institutionalisation of methods and effective evaluation of programmes, the merSETA is confident that M&E will continuously improve and thereby assist in improving planning processes.

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

Chapters 1 and 2 of the SSP sets the picture in terms of the context in which the mer sectors operate inclusive of the national priorities, from these chapters we see that the manufacturing sector has taken strain over the past few years with little in terms of growth, contribution to GDP has seemed to level out at around 13%. The mer sectors are certainly not exempt from these conditions, researchers working on interviews for the metal sector likened the environment to a veritable "ghost town", due to reduced workforces and closed down enterprises.

Market conditions are subject to both domestic and international markets. It is imperative that the market conditions are monitored to keep pace with trends, changes in the way business is conducted and policy concerns that may impact the sector internal to our borders. All the sectors are currently under stress, the plastics sector has been subject to violent strikes in the past few months, certain subsectors with plastics are gaining traction while others are not doing well. A key benefit to the sector in the governments' commitment to boost the automotive sector through the National Automotive Action Plan 2035 which will enable the country to ramp up new vehicle production considerably. The automotive components, sales and after sales and service sectors will also benefit, as well as the plastics and metal components manufacturers. Support through policy reform, enterprise assistance/incubation and skills development to meet the demands as set out in the Plan is key to ensure its fruition.

In terms of enterprise size and location, the mer sectors are not created equal, the skills demands of the subsectors differ according to region and company size, even in the skill priorities section (chapter 3), it was the smaller companies that seemed to struggle to fill vacancies which is possibly due to the type of worker which is required – they need qualifications, experience and a skills set that will ensure prosperity in terms of the demands of 4IR. A consideration to the skills development fraternity is also the fact that many large companies are shedding jobs due new technologies, they tend to train for their internal requirements and not necessarily to ensure that workers have sellable skills in smaller businesses or even as entrepreneurs. Hence a careful consideration of developing skills for the informal economy as well as the cooperatives sector must be considered.

In line with the national priorities as set out in the NDP, NGP and IPAP, the sectors are also stimulated to transform the sector in terms of the youth, race, gender and disability. In

Chapter 3, the skills gaps section of the SSP; it was highlighted that employers are struggling with equity appointments at managerial level. Similarly evaluation studies conducted by the merSETA have highlighted the requirement to provide bespoke or tailor made skills packages to meet the transformation mandate and ensure that candidate taking up positions at higher levels are adequately equipped with the skills to success for themselves and be an asset to their employers. The merSETA must invest in Black Industrialists if locally manufactured vehicles must comprise 60% locally manufactured components.

The merSETA must consider the mode of training provision and innovative ways of improving it. These enhancements must consider the worker of tomorrow, promote innovation, transformation and a sector led curriculum. A key for this is the Partnerships model which for most part needs to be strengthened to bring industry and the education sector together for mutually beneficial outcomes. The role of community colleges and other education and training social change entities that serve socially and economically disadvantaged communities traditionally located within townships and rural areas must also be considered critically to assess the ways in skills can be supported within such communities.

The green economy and the tenets of the circular economy cannot be ignored, these skills drivers were highlighted in Chapter 2. The lean manufacturing lens as well as a growing accountability for the end life of products is key for the future of the industry in terms of regulations, policy and skills to make the economy stronger and sustainable.

For the merSETA to remain relevant to its merSETA industries, it should be guided by the need to contribute to the development, expansion and diversification of its manufacturing industries. The merSETA should position itself as the intermediary that brings to bear employer, worker, government and education and training institutional capacity to achieving skills for the growth of its manufacturing industries as highlighted in chapter 4.

Chapter 5 further highlights that merSETA still needs to improve in terms of monitoring and evaluation, specifically with regards to measuring factors of success and failure and how to utilise these learnings to ensure greater impact in line with national priorities

6.3 RECOMMENDED SKILLS PRIORITY ACTIONS FOR MERSETA

The merSETA has consistently achieved above the expected 75% achievement rate set by the DHET. However, this should not lead to complacence and 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. These include:

A strengthened monitoring and evaluation system: In 2016, the merSETA implemented its organisation wide monitoring and evaluation framework for improving the monitoring and evaluation of its operational and organisational performance. The merSETA should strengthen its monitoring and evaluation system for improved governance, administration and accountability. Importantly, merSETA must institute mechanisms to ensure that actions are taken based on findings from monitoring and evaluation activities, as well as demonstrate understanding of the strengths, challenges and impact of its implemented initiatives.

Partnerships, learning networks and collaboration systems: The merSETA should use its partnerships more strategically and endeavour to participate in relevant learning networks, building systems for collaboration and learning as important vehicles for promoting an integrated approach to developing as well as implementing targeted, bespoke skills development initiatives. These should be relevant to the needs of the worker, employers, sector industries, community and national priorities. New types of collaboration and partnerships systems are required for providing access to skills development that will contribute to: the growth rural and township economies; stronger SMEs/cooperatives/other non formal job creation entrepreneurial activities; decrease of youth unemployment; worker re-skilling; and skills for females and people with disability. Very importantly merSETA partnerships have been implemented in a variety of approaches. It is opportune that best practice partnership conceptualisation, planning, contracting, implementation and partnership management that have emerged from some of our partnerships are systematised into a single coherent partnership system for all partnerships regardless of which division or unit is managing them. The system would include refining processes for the operationalisation of the recently approved Programmes and Projects Policy.

Innovation systems: Developing innovative systems and approaches to delivering skills in response to the trends driven by policy imperatives, technology, the economy, the labour market and the overall socio-economic context. The merSETA plans to continue working with HEIs, research institutions, industry and civil society in developing innovative systems that address challenges in the current system. The merSETA is in the process of developing a high quality new apprenticeship skills development process in South Africa that is more efficient, accessible, and scalable; one that is capable of preparing apprentices for Industry 4.0. The merSETA innovation systems for delivery of skills should include expanding access through: the use of technology; international knowledge exchange and knowledge adaptation; access to studies beyond the borders of the Republic; and leveraging bilateral and multi-lateral agreements particularly in knowledge/disciplines in relation to I4.0.

A strengthened governance, administrative and resourcing system: The NSDP states continued commitment for the social partnership model of governance (business, labour and government). The strength and value add of the social partner model of governance is intended to provide for the co-creation of the most appropriate solutions for the sector. The merSETA social partnership system should ensure that constituencies avail those who can build a strong accounting authority, an authority of individuals who are knowledgeable about the fiduciary and statutory obligations of serving on public entity bodies as well as having the ability to balance specific constituency aspirations and sector wide growth and development needs. The National Skills Authority states that critical to strengthened governance for SETAs will be systems that provide for clearer demarcation of and minimising duplication roles and responsibilities of governance structures and management, and the building of trust between these. A strengthened merSETA governance system would enable governance structures to play an important role in not only delivering skills to the sector but also in influencing policy. The funding mechanisms of the SETA should be reviewed such that focus is on quality and impact for the short, medium and long term skills development of current and future employees and the current and future growth trajectories of the mer industries/businesses.

A strategic labour market intelligence system: The merSETA should build strategic intelligence systems to support evidence based decision making, planning and operational

efficiency. Credible research, good data management and governance practices and a labour market information system are some of the key pillars in building a credible institutional mechanism for skills planning. Such a strategic labour market system needs to draw on a mix of research approaches and methodologies, and have the capability to draw data from a variety of sources both within merSETA and from the mer sector environment. A strategic labour market intelligence system cannot work without the willing contributions of credible, relevant data and information from industry players and merSETA stakeholders (business and labour). Business and labour stakeholder commitments to availing space and opportunity for data gathering and analysis will be a critical element of the system, and the merSETA AA would have to be central in acquiring such commitment.

A digital ecosystem for the merSETA: The merSETA has recognised that its data, information and knowledge are strategic assets for strengthening strategic planning, strategic decision making, governance, risk management and operational efficiency particularly as they pertain to internal control efficiencies. The approach adopted for data, information and knowledge management is through enterprise content management (ECM) that should be supported by advanced technology available. The ECM building blocks identified by the merSETA include data management and governance, information management, records management, knowledge management, social media management, web content management, enterprise communication, management information systems and business process management. The merSETA is approaching ECM from three perspectives: (i) Technology (tools & deliverables), (ii) People (Organisation / culture and roles and responsibilities and (iii) Processes (Activities and Practices & techniques). The renewed approach to the management of the merSETA content is also a means for digital transformation of the way in which merSETA conducts its business. This is part of the organisations response to the digital driven 4th industrial revolution that is demanding that today's organisation including those in the public sector become more responsive to the needs of a smart and digital society.

6.4 RECOMMENDED ACTIONS TO GUIDE MERSETA PLANNING AND SUPPORT OF NATIONAL STRATEGIES

The merSETA strategic priorities and actions identified in the 2018 SSP upgrade and later confirmed through the AA strategic planning and captured in the updated merSETA Strategic still hold, these being: supporting **structural transformation and reindustrialisation** (ownership, control and management); developing **skills 4.0 / future Skills and innovative career advice/support models; curriculum change** and **innovation** Industry 4.0 and advanced manufacturing; **innovation** in responding to socio-economic, technological, transformation agenda of the state, the circular and green economy; **partnerships** that support innovation, structural transformation, skills 4.0 and the circular and green economy; and, strengthening **governance** and **resourcing.** Although not done in detail, Chapter 3, 4 and 5 indicate progress made. Below are further actions in relation to identified priorities and previous recommended actions (update 2018).

- **The social economy and community development:** skills development to support the creation of economic opportunities and sustainable livelihood for the youth, women, people living with disabilities, township, rural and marginalised communities in a bid to create sustainable livelihoods**.** The merSETA has taken a decision to prioritise the funding

of projects that address the needs of the social economy and community development. The merSETA also plans to increase its support of community colleges as a strategy to increase its participation in the social economy and community development. The merSETA should consider broadening access also through locally based education and training social change entities (e.g. training CBO/NGOs). Innovative way of supporting rural provincial/regional beneficiaries through partnerships with government and other entities should also be considered. merSETA officials must be availed to represent merSETA on PSDFs. Support for the social economy and community development should be flexible and not be narrowly driven by the notion of "primary focus" of the SETA.

- **A demand led skills development system** driven by the economy, socio-economic context as well as other national priorities. This calls for the need to balance competing national, regional, sectoral, and community priorities as well as the needs of the workers (current and new) and employers/business. The merSETA must challenge its various stakeholders (including labour, business, government and education and training institutions) to collaborate on skills development initiatives that foster common goals for moving the sector and economy forward. Related to a demand led system is the need for the merSETA to review its research and skills planning approach and model particularly given the limitations of the current DHET approach of reliance on HTFV analysis and WSP/ATR analysis. The merSETA developed a model for skills planning in 2009, which model proposed an eclectic approach to research and skills planning that takes into account both qualitative and quantitative data, and calls for analysis at the macro (national & global drivers), meso (sector value chains and occupations along value chains), and micro levels (e.g. region, firm, production processes). The AA should consider approaching the MHET/DHET on the need to overhaul the research and sector skills planning approach. Best practice local and national approaches should be sourced. A recent publication of the HSRC, 2019 *Skills for the Future: new research perspectives,* Kruss, Wildschut & Peterson, presents innovative research based on case study methodology and focusing on the meso and micro levels. Such innovation approaches can be used to build a changed approach to research and sector skills planning.

- **Advancing local manufacturing** driven by technology, innovation, sustainability, globalisation and changing global manufacturing value chains**.** Using a value chain approach, the merSETA has identified priority sectors to support the responsiveness of the South African sector to the digital driven 4th industrial revolution. A significant example is the development of a focused strategy and possible chamber for the auto components manufacturing sector. With developments in the 4th industrial revolution, the sector has an opportunity to benefit not only from the localisation strategy (through the local manufacturing value chain) but the global automotive manufacturing value chain.
- **The future of jobs, future skills and demand for labour** due to changes in business models, globalisation, technology, consumer markets, local and international regulations. The merSETA is conducting research that looks into changing skills and occupations in the manufacturing sector in the context of I4.0. The reality is that new jobs will emerge while others disappear. The SETA should unpack underlying skills of emerging occupations and respond with a multipronged strategy for current workers, new entrants and future workers i.e. avoid a "one size fits all" response.

- **Changing trends in education, training and curriculum** driven by innovation, new knowledge, process and product changes in the workplace, regulation, global trends and demand for certain skills. This however requires changes in policy and regulation to create an enabling environment for innovation in training, education and curriculum. The SETA therefore needs to position itself as an influencer of policy to respond effectively to these developments. The merSETA and its stakeholders have had extensive discussion regarding models and options that could be taken forward collaboratively with QCTO and NAMB. The AA will consider taking these forward to the MHET/DHET for further deliberation.

- **Strengthening the concept of SETA as an intermediary body** which calls for the SETA to be the link between education and the workplace. The social partnership model provides opportunity for social partners inclusive of education and training providers to agree concrete commitments to build the SETA as an intermediary body. These would include on the part of government, changes to policy and funding formulae for TVET colleges that allow for TVET college to mainstream delivery of training for employers and workers, as opposed to current policy and funding approach that forces TVET colleges to deliver industry training as an add on and unfunded mandate. The AA should take on the responsibility of proposing an approach for the consideration of the MHET. Furthermore, employer organisations and labour organisations must be required to commit the participation of decision makers in the structures and activities of the SETA.

- **Supporting structural transformation** to promote **inclusive growth, employment** and growth of the local manufacturing sector through supporting the informal sector and other forms of non-traditional businesses such as cooperatives. SMEs are also central in creating a pipeline for black and other industrialists. The need to support SMEs through an ecosystem of a range of support mechanisms besides skills only is linked to promoting the role of the social economy in the inclusive growth agenda. The prioritisation of this sector means that SMEs are set to benefit from the various projects of identified priorities. The notion of a dedicated unit for SME/cooperative/informal sector support should be considered by the AA.

6.5 CONCLUSION

The context in which the merSETA must do its work is complex. It spans the rural and urban areas, very poor and marginalised youth, women and disabled to the highly skilled, highly mobile worker of tomorrow a worker who must navigate his or her way through the requirements of a transforming sector, that is ever embracing of new business models, new technologies and will have to comply with regulations set by the future of the circular economy; a sustainable future economy which presents many opportunities for those that are ready and many barriers for those who are not equipped to make a contribution in its market.

The employers in the mer sectors similarly span the very sophisticated global models of production to backyard, road side and informal trades/services. The contributions made by all players are of importance to the economy at large. As reported in this SSP the sector has not experienced significant growth in the recent past and need impetus from social partners

to effectively grow and become sustainable in a globally competitive environment. This requires active citizenry and enabling policy development. The merSETA engagement with its stakeholders across the spectrum of highly advanced to the fundamentally rudimentary, clearly indicates its service offering requires extra effort in terms of its design to suite the recipients of support as well as willing and engaged social partners to see its vision of closing the skills gap to fruition.

Annexure 1: QES sector statistics: Employment

QES Statistics – mer sectors

Sector	Industry description	Q4 2018
Auto	Motor vehicles	31777
Auto Total		**31777**
Metal	Basic iron and steel	29117
	Basic precious and non-ferrous metals	15922
	Building and repairing of ships and boats	5520
	Casting of metals	4412
	Electric lamps and lighting equipment	
	Electric motors, generators and transformers	14228
	Electricity distribution and control apparatus	6809
	Electronic valves and tubes and other electronic components; television and radio transmitters and apparatus for line telephony and line telegraphy	4093
	General purpose machinery	48514
	Household appliances n.e.c	6784
	Insulated wire and cable	4380
	Medical appliances and instruments and appliances for measuring, checking, testing, navigating and for other purposes, except optical instruments	10405
	Optical instruments and photographic equipment; watches and clocks	2178
	Other electrical equipment n.e.c.	9671
	Other fabricated metal products; metalwork service activities	64962
	Railway and tramway locomotives and rolling stock; aircraft and spacecraft	7020
	Special purpose machinery	60237
	Structural metal products, tanks, reservoirs and steam generators	36822
	Television and radio receivers, sound or video recording or reproducing apparatus and associated goods	2806
	Transport equipment n.e.c	4497
Metal Total		**338377**
Motor	Bodies for motor vehicles, trailers, and semi-trailers	15354
	Parts and accessories for motor vehicles and their engines	45074
	Motor trade	364975
Motor Total		**425403**
New Tyre	Rubber products	12396
New Tyre Total		**12396**
Plastics	Basic chemicals	23352
	Plastic products	46409
	Recycling n.e.c	10298
Plastics Total		**80059**
Grand Total		**888012**

ANNEXURE 2: LIST OF PARTNERSHIPS

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
Artisan RPL (Lim DPW)	LIMPOPO DEPARTMENT OF PUBLIC WORKS, ROADS AND INFRASTRUCTURE	LIMPOPO DEPART PUBLIC WORKS	Government	Artisan recognition of prior learning	25-Mar-19	30-Sep-23
Centre of Specialisations	DHET	DHET	Government	The nation-wide & SETA-wide DHET project is funded through the NSF to upgrade TVET college resources (Centres of Specialisation) and implement a specific model of apprenticeship training	Mar-18	30-Sep-23
Correctional Services Kimberly	DEPARTMENT OF CORRECT SERVICES	DEPARTMENT OF CORRECTIONAL SERVICES	Government	To train offenders awaiting parole on skills programmes. Partnership with government.	14-Jan-16	31-Mar-18
Dept. Basic Edu Tech Schools	DEPARTMENT OF BASIC EDUCATION	Department of Basic Education and Training	Government	The MoU with the DBE is the umbrella agreement for MoAs with 10 technical schools to support learners to become trade-tested artisans Strategic Objective 6	30-Mar-16	31-Jul-18
Dept. Basic Edu Tech Schools	KATLEHONG TECHNICAL SCHOOL	Department of Basic Education and Training	Government	The MoU with the DBE is the umbrella agreement for MoAs with 10 technical schools to support learners to become trade-tested artisans Strategic Objective 6	22-Mar-17	31-Aug-18
Dept. Small Businss Develop.	DEPART OF SMALL BUS DEV	Department of Small Business Development	Government	The purpose includes support for co-operatives and township & rural SMEs/NPCs with technical skills development. The DSBD/SEDA provides business support.	29-Mar-16	31-Mar-18
Dept. Small Businss Develop.	DOWNSTREAM ALUMINIUM CENTRE FOR TECHNOLOGY	Department of Small Business Development	Government	The purpose includes support for co-operatives and township & rural SMEs/NPCs with technical skills development. The DSBD/SEDA provides business support.	11-Dec-17	30-Jun-19
Dept. Small Businss Develop.	IZIMBOKODO PRIMARY COOPERATIVE	Department of Basic Education and Training	Government	The purpose includes support for co-operatives and township & rural SMEs/NPCs with technical skills development. The DSBD/SEDA provides business support.	29-Mar-19	30-Sep-23
Dept. Small Businss Develop.	MPUMALANGA STAINLESS INITIATIVE	Department of Small Business Development	Government	The purpose includes support for co-operatives and township & rural SMEs/NPCs with technical skills development. The DSBD/SEDA provides business support.	30-Jan-18	30-Sep-22
Dept. Small Businss Develop.	Department of Small Business Development	Department of Small Business Development	Government	The purpose includes support for co-operatives and township & rural SMEs/NPCs with technical skills development. The DSBD/SEDA provides business support.	11-Dec-17	30-Jun-19
Dept. Small Businss Develop.	SAVANT HARDWARE TECHNOLOGY INCUBATOR	Department of Small Business Development	Government	The purpose includes support for co-operatives and township & rural SMEs/NPCs with technical skills development. The DSBD/SEDA provides business support.	11-Dec-17	30-Jun-19

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
Dept. Small Businss Develop.	SEDA AGRICULTURAL AND MINING TOOLING INCUBATOR	Department of Small Business Development	Government	The purpose includes support for co-operatives and township & rural SMEs/NPCs with technical skills development. The DSBD/SEDA provides business support.	11-Dec-17	30-Jun-19
Dept. Small Businss Develop.	SEDA EKURHULENI BASE METALS INCUBATOR	Department of Small Business Development	Government	The purpose includes support for co-operatives and township & rural SMEs/NPCs with technical skills development. The DSBD/SEDA provides business support.	28-May-18	31-Mar-20
Dept. Small Businss Develop.	Department of Small Business Development	Department of Small Business Development	Government	The purpose includes support for co-operatives and township & rural SMEs/NPCs with technical skills development. The DSBD/SEDA provides business support.	28-Mar-19	30-Sep-23
Dept. Small Businss Develop.	Department of Small Business Development	Department of Small Business Development	Government	The purpose includes support for co-operatives and township & rural SMEs/NPCs with technical skills development. The DSBD/SEDA provides business support.	28-Mar-19	30-Sep-23
DUDT WC	WESTERN CAPE-DEDAT	Department of Economic Development (Western Cape)	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province could be addressed.	31-Mar-14	31-Mar-19
DUDT WC	WESTERN CAPE-DEPT OF ECO DEV	Department of Economic Development (Western Cape)	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province could be addressed.	10-Oct-17	31-Mar-20
EC - Office of Premier Proj.	OFFICE PREMIER,EASTERN CAPE	Office of the Premier	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province could be addressed.	30-Mar-16	31-Mar-19
Free State Office of Premier	OFFICE PREMIER,FREE STATE PROV	Office of the Premier	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province could be addressed.	29-Mar-16	31-Mar-18
Free State Office of Premier	OFFICE PREMIER,FREE STATE PROV	Office of the Premier	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province could be addressed.	14-Mar-17	31-Mar-20
GDE Apprent. Support Programme	GAUTENG DEPART EDUCATION (GDE)	Department of Education (DBE)	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province could be addressed.	31-Mar-14	30-Jun-19
GDE Apprent. Support Programme	GAUTENG DEPART EDUCATION (GDE)	Department of Education (DBE)	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province could be addressed.	Various	30-Jun-21
GDE Apprent. Support Programme	GAUTENG DEPART-EDUCATION (GDE)	Department of Education (DBE)	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province could be addressed.	31-Mar-14	30-Jun-19
GDE Apprent. Support Programme	GAUTENG DEPARTMENT OF EDUCATION-GDE (GCRA)	Department of Education (DBE)	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province could be addressed.	31-May-18	31-Mar-21
KZN - Office of Premier Proj.	KWAZULU-NATAL (KZN) OFFICE OF THE PREMIER-P3	KWAZULU-NATAL (KZN) OFFICE OF THE PREMIER	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province are addressed.	20-Mar-19	31-Mar-24

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
KZN - Office of Premier Proj.	KZN OFFICE OF THE PREMIER	KWAZULU-NATAL (KZN) OFFICE OF THE PREMIER	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province are addressed.	16-Jun-12	31-Mar-19
KZN - Office of Premier Proj.	OFFICE OF THE PREMIER:KWAZULU-NATAL	Office of the Premier	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province are addressed.	31-Mar-15	31-Mar-19
Learning factories (CSIR)	COUNCIL FOR SCIENTIFIC AND INDUSTRIAL RESEARCH	CSIR	Government	Various Programmes	22-Mar-19	31-Mar-23
Limpopo Dept. Public Works	LIMPOPO DEPART PUBLIC WORKS	LIMPOPO DEPART PUBLIC WORKS	Government	The provincial partnerships ensure that the specific needs of a province could be addressed.	24-Feb-17	31-Mar-18
Mpumalanga Education Depart.	MPUMALANGA DEPARTMENT OF EDUCATION	Department of Education (DBE)	Government	Provincial partnerships allows for the needs of the province to be addressed.	25-Mar-19	30-Sep-23
Mpumalanga Education Depart.	MPUMALANGA DEPT OF EDUCATION	Department of Education (DBE)	Government	Provincial partnerships allows for the needs of the province to be addressed.	11-Mar-15	30-Jun-20
National Dept. Public Works	National Dept of Public Works-Merseta Funded	National Dept of Public Works	Government	To partner with the National Department of Public Works in the implementation of the Expanded Public Works Programme of Artisan Development	03-Apr-14	31-Mar-19
National Dept. Public Works	National Dept of Public Works-Merseta Funded	National Dept of Public Works	Government	To partner with the National Department of Public Works in the implementation of the Expanded Public Works Programme of Artisan Development	Various	30-Sep-21
National Dept. Public Works	National Dept of Public Works-NDPW Funded	National Dept of Public Works	Government	To partner with the National Department of Public Works in the implementation of the Expanded Public Works Programme of Artisan Development	03-Apr-14	31-Mar-19
National Dept. Public Works	National Dept of Public Works-NDPW Funded	National Dept of Public Works	Government	To partner with the National Department of Public Works in the implementation of the Expanded Public Works Programme of Artisan Development	03-Apr-14	31-Mar-19
North West Office of Premier	OFFICE OF THE PREMIER NORTH WEST	Office of the Premier	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province could be addressed.	16-Mar-15	30-Nov-20
NSFAS Bursaries	NSFAS	NSFAS	Government	Funding of bursaries of unemployed students to achieve higher education qualifications.	10-Mar-17	31-Mar-19
Offenders await. Parole (EC)	DEPART OF CORR SER-EASTERN CAPE	DEPARTMENT OF CORRECTIONAL SERVICES	Government	To train offenders awaiting parole on skills programmes.	29-Mar-17	31-Mar-20
Offenders await. Parole (GAU)	DEPART OF CORR SER-GAUTENG	DEPARTMENT OF CORRECTIONAL SERVICES	Government	To train offenders awaiting parole on skills programmes.	29-Mar-17	31-Mar-20
Offenders await. Parole (KZN)	DEPART OF CORREC SERVICES-KZN	DEPARTMENT OF CORRECTIONAL SERVICES	Government	To train offenders awaiting parole on skills programmes.	29-Mar-17	31-Mar-20
Offenders await. Parole FS NC	DEPART CORREC SERVICES-GROENPUNT	DEPARTMENT OF CORRECTIONAL SERVICES	Government	To train offenders awaiting parole on skills programmes.	31-Mar-17	31-Mar-19

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
Offenders await. Parole FS NC	DEPART CORREC SERVICES-KIMBERLEY	DEPARTMENT OF CORRECTIONAL SERVICES	Government	To train offenders awaiting parole on skills programmes.	31-Mar-17	31-Mar-19
Offenders await. Parole FS NC	DEPART CORREC SERVICES-KROONSTAD	DEPARTMENT OF CORRECTIONAL SERVICES	Government	To train offenders awaiting parole on skills programmes.	31-Mar-17	31-Mar-19
Office of Premier-Limpopo	OFFICE OF THE PREMIER LIMPOPO PROV	Office of the Premier	Government	The provincial partnerships, specifically with the Offices of the Premiers, ensure that the specific needs of a province could be addressed.	29-Mar-17	31-Mar-20
QCTO CEP Pilot Project	ALAN FORSYTH	QCTO	Government	To develop occupational qualifications and part qualifications.	26-Jul-17	TBC
QCTO CEP Pilot Project	ALAN FORSYTH	QCTO	Government	To develop occupational qualifications and part qualifications.	18-Apr-18	31-Mar-19
QCTO CEP Pilot Project	ALAN FORSYTH	QCTO	Government	To develop occupational qualifications and part qualifications.	21-Jun-18	31-Mar-19
QCTO CEP Pilot Project	CHRIO JIRAH ACADEMY CC	QCTO	Government	To develop occupational qualifications and part qualifications.	18-Dec-15	TBC
QCTO CEP Pilot Project	CHRIO JIRAH ACADEMY CC	QCTO	Government	To develop occupational qualifications and part qualifications.	20-Jan-17	TBC
QCTO CEP Pilot Project	CHRIO JIRAH ACADEMY CC	QCTO	Government	To develop occupational qualifications and part qualifications.	28-Sep-18	30-Sep-19
QCTO CEP Pilot Project	CREATIVE CONSULTING	QCTO	Government	To develop occupational qualifications and part qualifications.	24-Jul-13	TBC
QCTO CEP Pilot Project	CREATIVE CONSULTING	QCTO	Government	To develop occupational qualifications and part qualifications.	08-Jun-18	31-Mar-19
QCTO CEP Pilot Project	CUSTOMISED BUSINESS ADVISORY SOLUTIONS CC T/A CBAS	QCTO	Government	To develop occupational qualifications and part qualifications.	04-Jun-18	31-Mar-19
QCTO CEP Pilot Project	CUSTOMIZED BUSINESS ADVISORY SOLUTIONS CC	QCTO	Government	To develop occupational qualifications and part qualifications.	27-Jun-17	TBC
QCTO CEP Pilot Project	ELSIEMOT AND ASSOCIATES	QCTO	Government	To develop occupational qualifications and part qualifications.	24-Jul-14	TBC
QCTO CEP Pilot Project	ELSIEMOT AND ASSOCIATES	QCTO	Government	To develop occupational qualifications and part qualifications.	30-May-18	31-Mar-19
QCTO CEP Pilot Project	ELSIEMOT AND ASSOCIATES	QCTO	Government	To develop occupational qualifications and part qualifications.	12-Oct-18	30-Sep-19
QCTO CEP Pilot Project	MOTSEKI BUSINESS CONSULTING	QCTO	Government	To develop occupational qualifications and part qualifications.	03-Oct-18	30-Sep-19
QCTO CEP Pilot Project	MOTSEKI BUSINESS CONSULTING	QCTO	Government	To develop occupational qualifications and part qualifications.	24-Jul-13	TBC
Robotics trn high School-FSDOE	FREE STATE DEPARTMENT OF EDUCATION	Department of Education (DBE)	Government	Training of Engineering Graphic and Design	29-Mar-19	30-Sep-21

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
Saldanha Bay IDZ	SALDANHA BAY IDZ Licencing Company SOC Ltd	SALDHANA BAY IDZ	Government	The notion of localisation and skills development in the identified zones.	29-Mar-19	30-Sep-23
Saldanha Bay IDZ	SALDHANA BAY IDZ	SALDHANA BAY IDZ	Government	The notion of localisation and skills development in the identified zones.	31-Mar-15	31-Mar-19
School Child. -Land Speed Rec	FLOORS HIGH SCHOOL	Department of Education (DBE)	Government	Exposing of High School students on Bloodhound Land Speed Record event and World Robot Olympiad competions, training of students on birkin car.	30-Mar-17	30-Jun-18
School Support	REIGER PARK SECONDARY SCHOOL	REIGER PARK SECONDARY SCHOOL	Government	Increased contribution to employment and growth opportunities through skills facilitation.	21-Nov-13	31-Mar-18
School Support	REIGER PARK SECONDARY SCHOOL	REIGER PARK SECONDARY SCHOOL	Government	Increased contribution to employment and growth opportunities through skills facilitation.	21-Nov-13	31-Mar-19
UIF - Project 1	UIF APPRENTICESHIP-Partnership	UIF	Government	To partner with the UIF to increase the skills of the unemployed through increased Artisan Development Training by providing funding to employers to encourage them to support national imperatives for a skilled workforce.	31-Mar-16	31-Mar-20
UIF - Project 2	UIF APPRENTICESHIP-Merseta Funded	UIF	Government	To partner with the UIF to increase the skills of the unemployed through increased Artisan Development Training by providing funding to employers to encourage them to support national imperatives for a skilled workforce.	31-Mar-16	31-Mar-20
Applied Research & Innovation projects	UNIVERSITY OF WESTERN CAPE	UNIVERSITY OF WESTERN CAPE	HEI	Professionalization of TVET Lecturers from PGDipTVET and upwards; strengthens merSETA's response to the DHET Policy on Professional Qualifications for Lecturers in Technical and Vocational Education and Training gazetted in 2013.	16-Nov-16	31-Mar-23
Black Female Management Project	MANCOSA (PTY) LTD	MANCOSA (PTY) LTD	HEI	Supporting 40 black females, employed by merSETA companies, in their managerial career paths in the manufacturing and engineering sectors. The 40 participants could obtain accredited NQF 6 or 8 qualifications in management.	23-Feb-17	30-Sep-18
Black Female Management Project	MANCOSA (PTY) LTD	MANCOSA (PTY) LTD	HEI	Supporting 40 black females, employed by merSETA companies, in their managerial career paths in the manufacturing and engineering sectors. The 40 participants could obtain accredited NQF 6 or 8 qualifications in management.	16-Oct-18	30-Apr-19
Bursaries	CAPE PENINSULA UNIVERSITY OF TECHNOLOGY	CAPE PENINSULA UNIVERSITY OF TECHNOLOGY	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	22-Mar-19	31-Mar-20
Bursaries	CAPE PENINSULA UNIVERSITY OF TECHNOLOGY(CPUT)	CAPE PENINSULA UNIVERSITY OF TECHNOLOGY	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	25-Apr-18	31-Mar-19
Bursaries	CENTRAL UNI OF TECH INNOVATION	CENTRAL UNIVERSITY OF TECHNOLOGY FREE STATE	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	25-Jan-17	31-Oct-17
Bursaries	CENTRAL UNI OF TECHN-FREE STATE	CENTRAL UNIVERSITY OF TECHNOLOGY FREE STATE	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	14-Mar-17	22-Dec-17

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
Bursaries	CENTRAL UNIVERSITY OF TECHNOLOGY	CENTRAL UNIVERSITY OF TECHNOLOGY FREE STATE	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	22-Mar-19	31-Mar-20
Bursaries	CUT SERVICES AND ENTERPRISES TRUST-FREE STATE	CUT SERVICES AND ENTERPRISES TRUST-FREE STATE	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	23-May-18	31-Mar-19
Bursaries	NELSON MANDELA METRO UNIVERSITY	NELSON MANDELA UNIVERSITY	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	10-Mar-17	22-Dec-17
Bursaries	NELSON MANDELA UNIVERSITY	NELSON MANDELA UNIVERSITY	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	09-May-18	31-Mar-19
Bursaries	TSHWANE UNIVERSITY OF TECHNOLOGY	TSHWANE UNIVERSITY OF TECHNOLOGY	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	09-Feb-17	31-Oct-17
Bursaries	TSHWANE UNIVERSITY OF TECHNOLOGY	TSHWANE UNIVERSITY OF TECHNOLOGY	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	10-Mar-17	22-Dec-17
Bursaries	UNIVERSITY OF CAPE TOWN	UNIVERSITY OF CAPE TOWN	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	27-Jan-17	31-Oct-17
Bursaries	UNIVERSITY OF CAPE TOWN	UNIVERSITY OF CAPE TOWN	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	02-May-18	31-Mar-19
Bursaries	UNIVERSITY OF CAPE TOWN	UNIVERSITY OF CAPE TOWN	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	29-Mar-19	31-Mar-20
Bursaries	UNIVERSITY OF JOHANNESBURG	UNIVERSITY OF JOHANNESBURG	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	18-May-18	31-Mar-19
Bursaries	UNIVERSITY OF PRETORIA	UNIVERSITY OF PRETORIA	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	16-May-18	31-Mar-19
Bursaries	UNIVERSITY OF PRETORIA	UNIVERSITY OF PRETORIA	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	22-Mar-19	31-Mar-20
Bursaries	UNIVERSITY OF THE WITS-JOHANNESBURG	UNIVERSITY OF THE WITWATERSRAND	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	31-Mar-17	31-Oct-17
Bursaries	VAAL UNIVERSITY OF TECHNOLOGY	VAAL UNIVERSITY OF TECHNOLOGY	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	15-Mar-17	31-Oct-17
Cape Peninsula Univ. Technology	CAPE PENINSULA UNIV OF TECH	CAPE PENINSULA UNIVERSITY OF TECHNOLOGY	HEI	Supporting P1/P2 Engineering Diploma students to obtain their qualifications	23-Mar-16	31-Mar-18
Cape Peninsula Univ. Technology	CAPE PENINSULA UNIV OF TECH	CAPE PENINSULA UNIVERSITY OF TECHNOLOGY	HEI	Supporting P1/P2 Engineering Diploma students to obtain their qualifications	31-Jan-18	31-Mar-19
Career Development Framework	UNIVERSITY OF SOUTH AFRICA	UNIVERSITY OF SOUTH AFRICA	HEI	Developing and indigenous career guidance framework for the MER-Sector aimed at improving the quality of career guidance for youth and adults	28-May-18	31-Mar-21
Central Univ. of Technology	C U OF TECHNOLOGY, FREE STATE	CAPE PENINSULA UNIVERSITY OF TECHNOLOGY	HEI	To support Chair in Engineering to conduct research, support postgraduate students and train school students in science, technology, engineering and mathematics.	24-Mar-16	31-Mar-18
Central Univ. of Technology	CENTRAL UNIVERSITY OF TECHNOLOGY	CENTRAL UNIVERSITY OF TECHNOLOGY FREE STATE	HEI	To support Chair in Engineering to conduct research, support postgraduate students and train school students in science, technology, engineering and mathematics.	30-Mar-17	31-Mar-19

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
Chair on Intelligent Man (TUT)	TSHWANE UNIVERSITY OF TECHNOLOGY	TSHWANE UNIVERSITY OF TECHNOLOGY	HEI	Various Programmes	22-Mar-19	31-Mar-22
CUT Chair in Innovation	CENTRAL UNIVERSITY OF TECHNOLOGY	CENTRAL UNIVERSITY OF TECHNOLOGY FREE STATE	HEI	To support Chair in Engineering in Commercialisation of Additive Manufacturing.	21-Dec-18	31-Mar-21
Durban Univer. Technol. (DUT)	DURBAN UNIVERSITY OF TECHNOLOGY	DURBAN UNIVERSITY OF TECHNOLOGY	HEI	To fund the university students to do Work Integrated Learning (WIL) in order to achieve their qualifications.	24-Mar-16	31-Mar-18
Future Manufacturing Skills	CENTRAL UNIVERSITY OF TECHNOLOGY INNOVATION SERVICES(BLOEMFONTEIN)	CENTRAL UNIVERSITY OF TECHNOLOGY FREE STATE	HEI	To support Operation Phakisa (marine engineering) in terms of Marine Engineering curriculum development, establishment of marine engineering within the university and staff development.	01-Feb-18	31-Mar-20
Future Manufacturing Skills	NELSON MANDELA UNIVERSITY	NELSON MANDELA UNIVERSITY	HEI	To support Operation Phakisa (marine engineering) in terms of Marine Engineering curriculum development, establishment of marine engineering within the university and staff development.	04-Jul-18	31-Dec-18
Ind 4.0 Dev. Cen. Supp (NMU)	NELSON MANDELA UNIVERSITY	NELSON MANDELA UNIVERSITY	HEI	Industry 4.0	28-Mar-19	31-Mar-20
Innovat., Resear & Sup - U.Ven	UNIVERSITY OF VENDA	UNIVERSITY OF VENDA	HEI	To support the research activities and offer postgraduate bursaries. To enhance partnership with the university.	31-Mar-17	31-Mar-20
Innovat., Resear & Sup - UNW	NORTH-WEST UNIVERSITY (NWU)	NORTH-WEST UNIVERSITY (NWU)	HEI	To support the research activities related to metal 3D printing, high school student training in science, technology engineering and mathematics and postgraduate bursaries.	29-Mar-17	31-Mar-20
Innovat., Resear & Supp - UFS	UNIVERSITY OF THE FREE STATE	UNIVERSITY OF THE FREE STATE	HEI	To support the research activities, school teacher training in technology, green building index and offer postgraduate bursaries.	30-Mar-17	31-Mar-20
ISFAP Bursaries	CENTRAL UNIVERSITY OF TECHNOLOGY	CENTRAL UNIVERSITY OF TECHNOLOGY FREE STATE	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	21-Dec-18	31-Mar-19
ISFAP Bursaries	NELSON MANDELA UNIVERSITY	NELSON MANDELA UNIVERSITY	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	28-Nov-18	31-Mar-19
ISFAP Bursaries	STELLENBOSCH UNIVERSITY	STELLENBOSCH UNIVERSITY	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	31-Oct-18	31-Mar-19
ISFAP Bursaries	THUTHUKA EDUCATION UPLIFTMENT FUND NPC	CENTRAL UNIVERSITY OF TECHNOLOGY FREE STATE	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	22-Mar-19	31-Oct-22
ISFAP Bursaries	UNIVERSITY OF CAPE TOWN	UNIVERSITY OF CAPE TOWN	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	22-Nov-18	31-Mar-19
ISFAP Bursaries	UNIVERSITY OF JOHANNESBURG	UNIVERSITY OF JOHANNESBURG	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	21-Dec-18	31-Mar-19
ISFAP Bursaries	UNIVERSITY OF PRETORIA	UNIVERSITY OF PRETORIA	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	31-Oct-18	31-Mar-19
ISFAP Bursaries	UNIVERSITY OF THE WITWATERSRAND	UNIVERSITY OF THE WITWATERSRAND	HEI	Funding of bursaries of unemployed students to achieve higher education qualifications.	31-Jan-19	31-Mar-19

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
ISOE Projects	NELSON MANDELA METRO UNI	NELSON MANDELA UNIVERSITY	HEI	To support skills development learning programmes and Chair in engineering support. Partnerships with, TVET colleges and universities.	29-Mar-16	30-Sep-18
ISOE Projects	NELSON MANDELA METRO UNI	NELSON MANDELA UNIVERSITY	HEI	To support skills development learning programmes and Chair in engineering support. Partnerships with, TVET colleges and universities.	29-Nov-16	30-Sep-18
ISOE Projects	UNIVERSITY OF VENDA	UNIVERSITY OF VENDA	HEI	To support skills development learning programmes and Chair in engineering support. Partnerships with, TVET colleges and universities.	01-Mar-15	31-Mar-18
Labour rep trn legisl-Rhodes	RHODES UNIVERSITY	RHODES UNIVERSITY	HEI	Various Programmes	22-Mar-19	30-Sep-21
Mangosutho Univ. Tech	MANGOSUTHO UNIV OF TECHNOLOGY	MANGOSUTHO UNIV OF TECHNOLOGY	HEI	To fund the university students to do Work Integrated Learning (WIL) in order to achieve their qualifications. To enhance partnership with the university.	28-Mar-16	31-Mar-18
Mangosutho Univ. Tech	MANGOSUTHO UNIV OF TECHNOLOGY	MANGOSUTHO UNIV OF TECHNOLOGY	HEI	To fund the university students to do Work Integrated Learning (WIL) in order to achieve their qualifications. To enhance partnership with the university.	19-Mar-19	30-Sep-23
Mangosutho Univ. Tech	VAAL UNIVERSITY OF TECHNOLOGY	VAAL UNIVERSITY OF TECHNOLOGY	HEI	To fund the university students to do Work Integrated Learning (WIL) in order to achieve their qualifications. To enhance partnership with the university.	30-Mar-19	30-Sep-23
NCV Learners	UNIVERSITY OF CAPE TOWN	UNIVERSITY OF CAPE TOWN	HEI	The main purpose is the support NCV (4) students to obtain trade tested artisan status	16-Nov-16	31-Mar-21
Nelson Mandela Metro University	NELSON MANDELA UNIVERSITY	NELSON MANDELA UNIVERSITY	HEI	To support Operation Phakisa (marine engineering) in terms of Marine Engineering curriculum development, establishment of marine engineering within the university and staff development.	27-Jun-18	31-Mar-21
Nelson Mandela Metro University	NELSON MANDELA METRO UNIVERSITY	NELSON MANDELA UNIVERSITY	HEI	To support Operation Phakisa (marine engineering) in terms of Marine Engineering curriculum development, establishment of marine engineering within the university and staff development.	31-Mar-15	31-Mar-20
P1,P2 & Intern Dev-Rec Circle	CAPE PENINSULA UNIVERSITY OF TECHNOLOGY (CPUT)	CAPE PENINSULA UNIVERSITY OF TECHNOLOGY	HEI	Supporting P1/P2 Engineering Diploma students to obtain their qualifications	19-Mar-19	30-Sep-23
P1,P2 & Intern Dev-Rec Circle	DURBAN UNIVERSITY OF TECHNOLOGY	DURBAN UNIVERSITY OF TECHNOLOGY	HEI	To fund the university students to do Work Integrated Learning (WIL) in order to achieve their qualifications.	27-Mar-19	30-Sep-23
Partnership-WITS University	UNIVERSITY OF THE WITWATERSRAND	UNIVERSITY OF THE WITWATERSRAND	HEI	To research and develop of introduction breaking institutional boundaries, create part-time learning pathways, graduate placement, targeting talent programme and tutor support.	10-Mar-16	31-Mar-19
Prog Rasberry PI (DUT)	DURBAN UNIVERSITY OF TECHNOLOGY	DURBAN UNIVERSITY OF TECHNOLOGY	HEI	Workplace experience for students P1&P2	29-Mar-19	30-Sep-21
Programme Impl-Work Integrated	STELLENBOSCH UNIVERSITY	STELLENBOSCH UNIVERSITY	HEI	The particular partnership focus on the P1/P2 WIL component of the curriculum to qualify with a Diploma in Engineering.	13-Dec-17	31-Mar-19

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
Skills Conferences & Competitions	CENTRAL UNIVERSITY OF TECHNOLOGY INNOVATION SERVICES(BLOEMFONTEIN)	CENTRAL UNIVERSITY OF TECHNOLOGY FREE STATE	HEI	To support Operation Phakisa (marine engineering) in terms of Marine Engineering curriculum development, establishment of marine engineering within the university and staff development.	01-Feb-18	31-Mar-20
Skills Conferences & Competitions	NELSON MANDELA UNIVERSITY	NELSON MANDELA UNIVERSITY	HEI	To support Operation Phakisa (marine engineering) in terms of Marine Engineering curriculum development, establishment of marine engineering within the university and staff development.	09-Jul-18	31-Dec-18
Skills Conferences & Competitions	UNIVERSITY OF PRETORIA	UNIVERSITY OF PRETORIA	HEI	To support Operation Phakisa (marine engineering) in terms of Marine Engineering curriculum development, establishment of marine engineering within the university and staff development.	08-Jul-18	31-Oct-18
TUT	TSHWANE UNIVERSITY OF TECHNOLOGY	TSHWANE UNIVERSITY OF TECHNOLOGY	HEI	There are two TuT contracts. The 2016 contract had multiple interventions, including research & the 2018/19 contract only focuses on P1/P2 students.	22-Mar-16	30-Jun-18
TUT	TSHWANE UNIVERSITY OF TECHNOLOGY	TSHWANE UNIVERSITY OF TECHNOLOGY	HEI	There are two TuT contracts. The 2016 contract had multiple interventions, including research & the 2018/19 contract only focuses on P1/P2 students.	29-Nov-18	31-Mar-20
TUT	TSHWANE UNIVERSITY OF TECHNOLOGY	TSHWANE UNIVERSITY OF TECHNOLOGY	HEI	There are two TuT contracts. The 2016 contract had multiple interventions, including research & the 2018/19 contract only focuses on P1/P2 students.	28-Mar-19	30-Sep-23
TUT	UNIVERSITY OF CAPE TOWN	UNIVERSITY OF CAPE TOWN	HEI	There are two TuT contracts. The 2016 contract had multiple interventions, including research & the 2018/19 contract only focuses on P1/P2 students.	20-Mar-19	30-Sep-23
TVET Quality Prog Skills	NELSON MANDELA UNIVERSITY	NELSON MANDELA UNIVERSITY	HEI	Development of TVET Lecturers and trainers	01-Feb-19	31-Mar-22
TVET Quality Prog Skills	SOUTH AFRICAN RENEWABLE ENERGY TECHNOLOGY CENTRE	SOUTH AFRICAN RENEWABLE ENERGY TECHNOLOGY CENTRE	HEI	Development of TVET Lecturers and trainers	21-Jan-19	31-Mar-22
Univ FS Chair in Engin 4.0	UNIVERSITY OF THE FREE STATE	UNIVERSITY OF THE FREE STATE	HEI	To support the training of schools and TVET on new technology related to Industry 4.0 and conducted research on green manufacturing and building index.	30-Nov-18	31-Mar-22
Univ Johannes. multi yr Projec	UNIVERSITY OF JOHANNESBURG	UNIVERSITY OF JOHANNESBURG	HEI	To provide BTech, Masters and PhD bursaries in engineering related fields.	29-Mar-16	31-Mar-20
Univ WC IDC Hub	UNIVERSITY OF THE WESTERN CAPE	UNIVERSITY OF THE WESTERN CAPE	HEI	To support the Interactive Digital Centre establish a virtual 3-D learning platform, Digital School and an App Development Laboratory	28-Sep-18	31-Mar-22
University Western Cape	UNIVERSITY OF THE WESTERN CAPE	UNIVERSITY OF THE WESTERN CAPE	HEI	Extended Curriculum Programmes	22-Mar-19	31-Mar-20
Walter Sisulu University	WALTER SISULU UNIVERSITY	WALTER SISULU UNIVERSITY	HEI	To assist the university to re-align all engineering programmes according to the revised national qualifications policy and to	26-Mar-15	31-Dec-18

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
				offer post graduate engineering qualifications; To provide bursaries and mentorship to lecturers at the institution to complete their Masters and PhD qualifications; To strengthen research capabilities of the university in identified areas. All of these work streams are linked to the Strategic Plan of WSU.		
Work Integrated Learning	UNIVERSITY OF SOUTH AFRICA	UNIVERSITY OF SOUTH AFRICA	HEI	The particular partnership focuses on the P1/P2 WIL component of the curriculum to qualify with a Diploma in Engineering. (To provide WIL to P1 & P2 Engineering students so that they qualify/acquire a Diploma in Engineering)	28-Sep-18	31-Mar-20
World Skills	CENTRAL UNIVERSITY OF TECHNOLOGY INNOVATION SERVICES(BLOEMFONTEIN)	CENTRAL UNIVERSITY OF TECHNOLOGY FREE STATE	HEI	To fund the university students to do Work Integrated Learning (WIL) in order to achieve their qualifications. To enhance partnership with the university.	01-Feb-18	31-Mar-20
British Council	BRITISH COUNCIL	BRITISH COUNCIL	International	To link selected TVET colleges with United Kingdom colleges in terms of curriculum development, management capacity building and TVET lecturer development.	29-Mar-18	31-Mar-20
Chinese Cultural Training Centre	CHINESE CULTURE AND INT ED EXC CENTRE	CHINESE CULTURE AND INT ED EXC CENTRE	International	To offer the TVET students internship in China through undergoing training at Chinese Institutions and work placement on Chinese companies.	09-Dec-16	30-Sep-19
Chinese Cultural Training Centre	CHINESE CULTURE AND INT ED EXC CENTRE	CHINESE CULTURE AND INT ED EXC CENTRE	International	To offer the TVET students internship in China through undergoing training at Chinese Institutions and work placement on Chinese companies.	04-Mar-19	31-Mar-21
Non Levy paying NGO's CBOS	NGO/CBO	NGO/CBO	NGO	Upliftment of communities and supporting primarily unemployed learners to achieve credit bearing interventions that could lead to further learning.	01-Dec-15	31-Mar-20
ABET Phase 4	ABET DG4	ABET DG4	Other	To contribute towards the achievement and objectives of the NSDS lll, the merSETA's Sector Skills Plan (SSP), Strategic Plan (SP) and Annual Performance Plan (APP).	Various	31-Mar-20
Courseware Development	CREATIVE CONSULTING TRAINING AND TRANSLATION CC	CREATIVE CONSULTING TRAINING AND TRANSLATION CC	Other	To develop motor mechanic, vehicle damage quantifier and millwright occupational qualifications courseware for the utilised by stakeholders.	28-Feb-18	31-Mar-19
Courseware Development	CREATIVE CONSULTING TRAINING AND TRANSLATION CC	CREATIVE CONSULTING TRAINING AND TRANSLATION CC	Other	To develop motor mechanic, vehicle damage quantifier and millwright occupational qualifications courseware for the utilised by stakeholders.	13-Mar-18	31-Mar-19
Courseware Development	KEITH HECTOR ASSOCIATES (PTY) LTD	KEITH HECTOR ASSOCIATES (PTY) LTD	Other	To develop motor mechanic, vehicle damage quantifier and millwright occupational qualifications courseware for the utilised by stakeholders.	29-May-18	31-Mar-19
Courseware Development	VERY COOL IDEAS (PTY) LTD	VERY COOL IDEAS (PTY) LTD	Other	To develop motor mechanic, vehicle damage quantifier and millwright occupational qualifications courseware for the utilised by stakeholders.	14-Aug-18	31-Mar-19

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
P1,P2 & Intern Dev-Rec Circle	RESOLUTION CIRCLE (PTY) LTD	RESOLUTION CIRCLE (PTY) LTD	Other	The particular partnership focus on the P1/P2 WIL component of the curriculum to qualify with a Diploma in Engineering.	08-Mar-17	31-Mar-18
P1,P2 & Intern Dev-Rec Circle	RESOLUTION CIRCLE (PTY) LTD	RESOLUTION CIRCLE (PTY) LTD	Other	The particular partnership focus on the P1/P2 WIL component of the curriculum to qualify with a Diploma in Engineering.	26-Jan-18	30-Sep-22
P1,P2 & Intern Dev-Rec Circle	RESOLUTION CIRCLE (PTY) LTD	RESOLUTION CIRCLE (PTY) LTD	Other	The particular partnership focus on the P1/P2 WIL component of the curriculum to qualify with a Diploma in Engineering.	19-Mar-19	30-Sep-23
Trn & mentor small bus (RMI)	RETAIL MOTOR INDUSTRY ORGANISATION	RETAIL MOTOR INDUSTRY ORGANISATION	Other	New venture creation learnerships training to small businesses	29-Mar-19	30-Mar-22
Atlas Occupations	UNIVERSITY OF THE WITWATERSRAND, JOHANNESBURG (REAL)	UNIVERSITY OF THE WITWATERSRAND	Research	To provide a reference guide of occupations and jobs that are in demand in the mer sectors. Elaborates on current demand, occupations that are becoming redundant as well as provide a future outlook.	28-Mar-19	31-Mar-20
Black Industrialist	HUMAN SCIENCES RESEARCH COUNCIL	HUMAN SCIENCES RESEARCH COUNCIL	Research	To understand the role of training and skills in structural transformation in the manufacturing, engineering and related services sector in the context of the 4th industrial revolution..	13-Mar-19	31-Mar-20
Chamber Development Programme	MABATIMI MANAGEMENT SERVICES CC	MABATIMI MANAGEMENT SERVICES CC	Research	Chambers provide a sectoral view of important developments that would enhance the merSETA skills development mandate; Chambers are provided with funding to execute sector based research projects	24-Oct-17	30-Apr-18
Chamber Development Programme	MAHLE BEHR	MAHLE BEHR	Research	Chambers provide a sectoral view of important developments that would enhance the merSETA skills development mandate; Chambers are provided with funding to execute sector based research projects	04-Oct-17	31-Mar-18
Chamber Development Programme	NATIONAL UNION OF METALWORKERS	NATIONAL UNION OF METALWORKERS	Research	Chambers provide a sectoral view of important developments that would enhance the merSETA skills development mandate; Chambers are provided with funding to execute sector based research projects	06-Feb-18	31-Mar-19
Chamber Development Programme	PLASTICS FEDERATION OF SA	PLASTICS FEDERATION OF SA	Research	Chambers provide a sectoral view of important developments that would enhance the merSETA skills development mandate; Chambers are provided with funding to execute sector based research projects	25-Jun-18	31-Mar-19
Chamber Development Programme	STEEL AND ENG INDUSTRIES OF S A	STEEL AND ENG INDUSTRIES OF S A	Research	Chambers provide a sectoral view of important developments that would enhance the merSETA skills development mandate; Chambers are provided with funding to execute sector based research projects	24-Aug-17	31-Mar-18
Chamber Development Programme	STEEL AND ENG INDUSTRIES OF S A	STEEL AND ENG INDUSTRIES OF S A	Research	Chambers provide a sectoral view of important developments that would enhance the merSETA skills development mandate; Chambers are provided with funding to execute sector based research projects	05-Feb-19	01-May-19
CIPSET Student Association	NELSON MANDELA UNIVERSITY	NELSON MANDELA UNIVERSITY	Research	To research and implement solidarity models for TVET college students through a student driven association	03-Jul-18	31-Mar-21

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
Green Skills	GREEN YOUTH PROGRAMME	GREEN YOUTH PROGRAMME	Research	To update the Green Skills survey that was completed in 2012 and establish the current context of the Green Agenda in terms of stakeholder understanding and strategies to address issues as per the circular economy	28-Sep-18	30-Jun-19
Green Skills	STELLENBOSCH UNIVERSITY (SCHOOL OF PUBLIC LEADERSHIP)	STELLENBOSCH UNIVERSITY	Research	To update the Green Skills survey that was completed in 2012 and establish the current context of the Green Agenda in terms of stakeholder understanding and strategies to address issues as per the circular economy	28-Mar-19	31-Mar-21
Institute for Motor Industry	INSTITUTE OF THE MOTOR INDUSTRY (IMI)	INSTITUTE OF THE MOTOR INDUSTRY (IMI)	Research	To develop a Return on Investment Calculator for automotive trades.	10-Mar-16	31-Mar-19
People with Disabilities	PEOPLE WITH DISABILITIES	PEOPLE WITH DISABILITIES	Research	PwDs require dedicated support in skills development to ensure not only access and redress, but also enabling WIL opportunities.	Mar-18	31-Mar-20
PSET-Collaboration	JOINT EDUCATION TRUST EDUCATION SEVICES (JET)	JOINT EDUCATION TRUST EDUCATION SEVICES (JET)	Research	To establish an integrated digital ecosystem that will strengthen, integrate, coordinate and improve efficiencies through governance and management of the PSET data, information and knowledge ecosystem	30-Jul-18	31-Mar-23
Research and Development	MZABALAZO ADVISORY SERVICES-REGION 1	MZABALAZO ADVISORY SERVICES	Research	Skills demand and supply in the informal sector	15-Jun-17	30-Jun-18
Research and Development	NELSON MANDELA UNIVERSITY	NELSON MANDELA UNIVERSITY	Research	Researching education advancing entrepreneurial livelihoods of youth in the Eastern Cape	15-May-18	31-Mar-20
Research and Development	REDFLANK SOLUTIONS (PTY)LTD-REGION 2	REDFLANK SOLUTIONS (PTY)LTD	Research	Skills demand and supply in the informal sector	09-Jun-17	30-Jun-18
Research and Development	REDFLANK SOLUTIONS (PTY)LTD-REGION 3	REDFLANK SOLUTIONS (PTY)LTD	Research	Skills demand and supply in the informal sector	09-Jun-17	30-Jun-18
Research project skills 4.0	CAPE PENINSULA UNIVERSITY OF TECHNOLOGY (CPUT)	CAPE PENINSULA UNIVERSITY OF TECHNOLOGY	Research	Developing a Skills 4.0 approach to solve problems regarding current apprenticeship models through applying technology to make apprenticeships more attractive to SMEs, through incorporating informal and rural learners, through enhanced quality of learning teaching and workplace interaction, and through modifying learner behaviour towards self-directed milestone-structured learning pathways.	27-Jul-18	31-Mar-20
Research project skills 4.0	CSIR	CSIR	Research	Developing a Skills 4.0 approach to solve problems regarding current apprenticeship models through applying technology to make apprenticeships more attractive to SMEs, through incorporating informal and rural learners, through enhanced quality of learning teaching and workplace interaction, and through modifying learner behaviour towards self-directed milestone-structured learning pathways.	27-Jun-18	31-Mar-20
Research project skills 4.0	#REF!	#REF!	Research	Developing a Skills 4.0 approach to solve problems regarding current apprenticeship models through applying technology to make apprenticeships more attractive to SMEs, through	22-Jan-19	31-Dec-20

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
				incorporating informal and rural learners, through enhanced quality of learning teaching and workplace interaction, and through modifying learner behaviour towards self-directed milestone-structured learning pathways.		
Retrenchment Assisistance/TLS	RAP/TLS	RAP/TLS	Research	Workers in companies in distress are supported through skills development to re-skill, up-skill or embark on new skill sets or retrenched workers in merSETA companies for re-skilling	Mar-18	31-Oct-19
Strategy unit project	BRAND FISCHER MOGENSEN (PTY) LTD	BRAND FISCHER MOGENSEN (PTY) LTD	Research	1. To evaluate the efficiency and impact of the merSETA artisan pathways leading merSETA trade qualifications, the pathways being learnership, apprenticeship, NCV Level 4 graduates placed to acquire trade test, artisan recognition of prior learning (ARPL); 2. To use results of evaluation study to inform decision making of leadership and management of merSETA; 3.	25-Jun-18	31-Dec-18
Strategy unit project	F R RESEARCH SERVICES CC	F R RESEARCH SERVICES CC	Research	1. To evaluate the efficiency and impact of the merSETA artisan pathways leading merSETA trade qualifications, the pathways being learnership, apprenticeship, NCV Level 4 graduates placed to acquire trade test, artisan recognition of prior learning (ARPL); 2. To use results of evaluation study to inform decision making of leadership and management of merSETA; 3.	28-Jun-18	31-Dec-18
Strategy unit project	MEASURE VALUE (PTY) LTD	MEASURE VALUE (PTY) LTD	Research	1. To evaluate the efficiency and impact of the merSETA artisan pathways leading merSETA trade qualifications, the pathways being learnership, apprenticeship, NCV Level 4 graduates placed to acquire trade test, artisan recognition of prior learning (ARPL); 2. To use results of evaluation study to inform decision making of leadership and management of merSETA; 3.	17-Jul-18	31-Jan-19
Strategy unit project	MZABALAZO ADVISORY SERVICES	MZABALAZO ADVISORY SERVICES	Research	1. To evaluate the efficiency and impact of the merSETA artisan pathways leading merSETA trade qualifications, the pathways being learnership, apprenticeship, NCV Level 4 graduates placed to acquire trade test, artisan recognition of prior learning (ARPL); 2. To use results of evaluation study to inform decision making of leadership and management of merSETA; 3.	07-Nov-18	31-May-20
SME Project	SME	SME	SME	To contribute towards the achievement and objectives of the NSDS lll, the merSETA's Sector Skills Plan (SSP), Strategic Plan (SP) and Annual Performance Plan (APP).	Mar-18	31-Dec-18
Capacity Building FET's	COLLEGE OF CT PUBLIC TVET COLLEGE	COLLEGE OF CAPE TOWN TVET	TVET College	The merSETA / TVET partnerships focus on skills development interventions inclusive of WIL. Contracts.	28-Jan-15	31-Mar-19
Capacity Building FET's	FALSE BAY PUBLIC FET COLLEGE	FALSE BAY COLLEGE	TVET College	The merSETA / TVET partnerships focus on skills development interventions inclusive of WIL. Contracts.	24-Mar-14	31-Mar-19
Capacity Building FET's	GERT SIBANDE PUBLIC TVET COLLEGE	GERT SIBANDA TVET COLLEGE	TVET College	The merSETA / TVET partnerships focus on skills development interventions inclusive of WIL. Contracts.	22-Jan-15	31-Mar-19
Capacity Building FET's	LEPHALALE PUBLIC TVET COLLEGE	LEPHALALE PUBLIC TVET COLLEGE	TVET College	The merSETA / TVET partnerships focus on skills development interventions inclusive of WIL. Contracts.	22-Jan-15	31-Mar-19

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
Co-Operatives and TVET's	GERT SIBANDE TVET COLLEGE	GERT SIBANDA TVET COLLEGE	TVET College	The purpose was to test a model for co-operative formation based on the theory described as the solidarity economy.	29-Feb-16	31-Oct-18
Co-Operatives and TVET's	UMFOLOZI TVET COLLEGE	UMFOLOZI TVET COLLEGE	TVET College	The purpose was to test a model for co-operative formation based on the theory described as the solidarity economy.	29-Feb-16	31-Oct-18
CUT Chair in Innovation	COLLEGE OF CAPE TOWN	COLLEGE OF CAPE TOWN TVET	TVET College	To support the TVET College to acquire tools and equipment linked to artisan training. To enhance partnership with the TVET college.	28-Feb-19	31-Mar-20
Eastcape Midlands TVET	EASTCAPE MIDLANDS TVET COLLEGE	EASTCAPE MIDLANDS TVET COLLEGE	TVET College	To support the TVET College to acquire tools and equipment linked to 4th Industrial Revolution.	31-Oct-18	31-Mar-21
False Bay C Swartklip Artisan	FALSE BAY TVET COLLEGE	FALSE BAY COLLEGE	TVET College	To support the TVET College to acquire tools and equipment for artisan training for the new Swartklip Campus.	22-Nov-18	31-Mar-21
ISOE Projects	COASTAL KZN PUBLIC FET	COASTAL KZN TVET COLLEGE	TVET College	To support skills development learning programmes and Chair in engineering support. Partnerships with, TVET colleges and universities.	01-Jul-12	31-Mar-18
ISOE Projects	UMNGUNGUNDLOVU TVET COLLEGE	UMNGUNGUNDLOVU TVET COLLEGE	TVET College	To support skills development learning programmes and Chair in engineering support. Partnerships with, TVET colleges and universities.	24-May-18	30-Sep-21
Lecturer Development	EKURHULENI EAST TVET COLLEGE	EKURHULENI EAST TVET COLLEGE	TVET College	The purpose of the programme was to support technical lecturers who were not qualified artisans.	20-Mar-15	30-Jun-18
Lecturer Development	GOLDFIELDS TVET COLLEGE P2	GOLDFIELDS TVET COLLEGE	TVET College	The purpose of the programme was to support technical lecturers who were not qualified artisans.	09-Mar-15	30-Jun-18
Lecturer Development	MAJUBA TVET COLLEGE	MAJUBA TVET COLLEGE	TVET College	The purpose of the programme was to support technical lecturers who were not qualified artisans.	19-Feb-15	30-Jun-18
Lecturer Development	MALUTI TVET COLLEGE	MALUTI TVET COLLEGE	TVET College	The purpose of the programme was to support technical lecturers who were not qualified artisans.	02-Mar-15	30-Jun-18
Lecturer Development	MOPANI SOUTH EAST TVET COLLEGE	MOPANI SOUTH EAST TVET COLLEGE	TVET College	The purpose of the programme was to support technical lecturers who were not qualified artisans.	09-Mar-15	30-Jun-18
Lecturer Development	MOTHEO TVET COLLEGE	MOTHEO TVET COLLEGE	TVET College	The purpose of the programme was to support technical lecturers who were not qualified artisans.	17-Mar-15	30-Jun-18
Lecturer Development	SEDIBENG TVET COLLEGE	SEDIBENG TVET COLLEGE	TVET College	The purpose of the programme was to support technical lecturers who were not qualified artisans.	18-Feb-15	30-Jun-18
Lecturer Development	UMFOLOZI TVET COLLEGE	UMFOLOZI TVET COLLEGE	TVET College	The purpose of the programme was to support technical lecturers who were not qualified artisans.	20-Mar-15	30-Jun-18
Lecturer Development	VUSULELA TVET COLLEGE	VUSELELA TVET COLLEGE	TVET College	The purpose of the programme was to support technical lecturers who were not qualified artisans.	16-Mar-15	30-Jun-18
NC(V) learners to Artisan TVET	WATERBERG TVET COLLEGE	WATERBERG TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	17-Mar-17	31-Mar-20
NC(V) learners to Artisan TVET	WATERBERG TVET COLLEGE	WATERBERG TVET COLLEGE	TVET College	70 Identified learners from the College database	17-Mar-17	31-Mar-20
NC(V) learners to Artisan TVET	WEST COAST TVET COLLEGE P3	WEST COAST COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	29-Mar-17	31-Mar-20

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
NC(V) learners to Artisan TVET	WEST COAST TVET COLLEGE P3	WEST COAST COLLEGE	TVET College	NCV4 to Artisans	29-Mar-17	31-Mar-20
NCV Learners	BOLAND PUBLIC TVET COLLEGE P3	BOLAND TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	16-Nov-16	31-Mar-21
NCV Learners	BOLAND TVET COLLEGE	BOLAND TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	22-Mar-19	30-Sep-23
NCV Learners	BOLAND TVET COLLEGE P2	BOLAND TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	24-Feb-15	30-Jun-18
NCV Learners	BOLAND TVET COLLEGE P3	BOLAND TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	20-Mar-18	31-Mar-19
NCV Learners	BUFFALO CITY TVET COLLEGE	BUFFALO CITY TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	03-Feb-16	31-Mar-20
NCV Learners	CAPRICORN TVET COLLEGE	CAPRICORN TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	23-Feb-16	31-Mar-20
NCV Learners	CAPRICORN TVET COLLEGE	CAPRICORN TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	25-Mar-19	30-Sep-23
NCV Learners	COASTAL KZN PUBLIC TVET COLLEGE P2	COASTAL KZN TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	02-Dec-16	31-Mar-21
NCV Learners	COASTAL KZN TVET COLLEGE	COASTAL KZN TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	28-Feb-19	30-Sep-23
NCV Learners	COLLEGE OF CAPE TOWN	COLLEGE OF CAPE TOWN TVET	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	13-Dec-17	31-Mar-20
NCV Learners	COLLEGE OF CAPE TOWN	COLLEGE OF CAPE TOWN TVET	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	29-Mar-19	30-Sep-23
NCV Learners	COLLEGE OF CAPE TOWN	COLLEGE OF CAPE TOWN TVET	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	15-Jan-19	30-Sep-21
NCV Learners	COLLEGE OF CAPE TOWN TVET	COLLEGE OF CAPE TOWN TVET	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	03-Feb-16	31-Mar-20
NCV Learners	COLLEGE OF CAPE TOWN TVET	COLLEGE OF CAPE TOWN TVET	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	10-Mar-16	31-Mar-20
NCV Learners	EAST CAPE TRAINING CENTRE	EAST CAPE TRAINING CENTRE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	23-Mar-16	31-Mar-20
NCV Learners	EASTCAPE MIDLANDS TVET COLLEGE	EASTCAPE MIDLANDS TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	27-Feb-15	31-Mar-20
NCV Learners	EHLANZENI TVET COLLEGE	EHLANZENI TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	04-Mar-16	31-Mar-20
NCV Learners	EKURHULENI EAST PUBLIC TVET COLLEGE	EKURHULENI EAST TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	02-Dec-16	31-Mar-21
NCV Learners	EKURHULENI EAST TVET COLLEGE	EKURHULENI EAST TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	03-Mar-15	30-Jun-18
NCV Learners	EKURHULENI WEST TVET COLLEGE	EKURHULENI WEST TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	30-Mar-15	31-Mar-17

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
NCV Learners	EKURHULENI WEST TVET COLLEGE	EKURHULENI WEST TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	20-Mar-19	30-Sep-23
NCV Learners	EKURHULENI WEST TVET COLLEGE-P3	EKURHULENI WEST TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	18-Dec-17	31-Mar-20
NCV Learners	ELANGENI TVET COLLEGE	ELANGENI TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	12-Feb-16	31-Mar-20
NCV Learners	ESAYIDI TVET COLLEGE	ESAYIDI TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	26-Jan-16	31-Mar-20
NCV Learners	FALSE BAY COLLEGE	FALSE BAY COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	11-Dec-18	30-Sep-21
NCV Learners	FALSE BAY TVET COLLEGE	FALSE BAY COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	09-Feb-16	31-Mar-18
NCV Learners	FALSE BAY TVET COLLEGE	FALSE BAY COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	18-Dec-17	30-Jun-18
NCV Learners	FALSE BAY TVET COLLEGE	FALSE BAY COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	20-Mar-19	30-Sep-23
NCV Learners	GERT SIBANDA TVET COLLEGE	GERT SIBANDA TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	27-Mar-19	30-Sep-23
NCV Learners	GERT SIBANDE TVET COLLEGE P2	GERT SIBANDA TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	30-Mar-15	30-Jun-18
NCV Learners	GERT SIBANDE TVET COLLEGE P3	GERT SIBANDA TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	26-Jan-18	31-Mar-20
NCV Learners	GOLDFIELDS PUBLIC TVET COLLEGE P2	GOLDFIELDS TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	08-Jan-15	31-Mar-19
NCV Learners	GOLDFIELDS TVET COLLEGE	GOLDFIELDS TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	20-Mar-19	30-Sep-23
NCV Learners	INGWE TVET COLLEGE	INGWE TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	08-Mar-19	30-Sep-23
NCV Learners	KING SABATA DALINDYEBO TVET COLLEGE	KING SABATA DALINDYEBO TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	25-Mar-19	30-Sep-23
NCV Learners	LEPHALALE TVET COLLEGE P2	LEPHALALE PUBLIC TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	30-Mar-15	30-Jun-18
NCV Learners	LEPHALALE TVET COLLEGE P3	LEPHALALE PUBLIC TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	16-Jan-18	30-Sep-22
NCV Learners	LETABA TVET COLLEGE	LETABA TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	25-Mar-19	30-Sep-23
NCV Learners	LETABA TVET COLLEGE-P2	LETABA TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	23-Feb-16	31-Mar-20
NCV Learners	MAJUBA TVET COLLEGE	MAJUBA TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	30-Mar-15	30-Jun-18

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
NCV Learners	MAJUBA TVET COLLEGE	MAJUBA TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	28-Mar-19	30-Sep-23
NCV Learners	MALUTI TVET COLLEGE P2	MALUTI TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	30-Mar-15	30-Jun-18
NCV Learners	MOPANI SOUTH EAST TVET COLLEGE P2	MOPANI SOUTH EAST TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	20-Feb-15	30-Jun-18
NCV Learners	MOTHEO TVET COLLEGE	MOTHEO TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	31-Mar-15	30-Jun-18
NCV Learners	MOTHEO TVET COLLEGE	MOTHEO TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	27-Mar-19	30-Sep-23
NCV Learners	NKANGALA TVET COLLEGE	NKANGALA TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	15-Feb-19	30-Sep-22
NCV Learners	NKANGALA TVET COLLEGE P3	NKANGALA TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	14-Dec-17	30-Mar-20
NCV Learners	NORTHLINK COLLEGE	NORTHLINK COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	25-Jan-19	30-Sep-22
NCV Learners	NORTHLINK PUBLIC TVET COLLEGE	NORTHLINK COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	10-Nov-16	31-Mar-21
NCV Learners	NORTHLINK TVET COLLEGE	NORTHLINK COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	30-Mar-15	30-Jun-18
NCV Learners	NORTHLINK TVET COLLEGE	NORTHLINK COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	23-Feb-16	31-Mar-18
NCV Learners	NORTHLINK TVET COLLEGE	NORTHLINK COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	18-Dec-17	31-Mar-20
NCV Learners	ORBIT TVET COLLEGE P2	ORBIT TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	30-Mar-15	30-Jun-18
NCV Learners	SEDIBENG TVET COLLEGE	SEDIBENG TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	01-Feb-16	31-Mar-18
NCV Learners	SEDIBENG TVET COLLEGE P2	SEDIBENG TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	18-Feb-15	30-Jun-18
NCV Learners	SEKHUKHUNE TVET COLLEGE	SEKHUKHUNE TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	28-Jan-16	31-Mar-18
NCV Learners	SEKHUKHUNE TVET COLLEGE	SEKHUKHUNE TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	13-Mar-19	30-Sep-23
NCV Learners	SOUTH CAPE TVET COLLEGE	SOUTH CAPE TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	26-Feb-15	30-Sep-19
NCV Learners	SOUTH WEST GAUTENG TVET COLLEGE	SOUTH WEST GAUTENG TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	14-Mar-19	30-Sep-23
NCV Learners	TALETSO TVET COLLEGE	TALETSO TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	03-Feb-16	31-Mar-18
NCV Learners	THEKWINI TVET COLLEGE	THEKWINI TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	23-Jan-16	31-Mar-20

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
NCV Learners	TSHWANE SOUTH TVET COLLEGE	TSHWANE SOUTH TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	30-Mar-15	30-Jun-18
NCV Learners	TSHWANE SOUTH TVET COLLEGE	TSHWANE SOUTH TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	14-Mar-19	30-Sep-23
NCV Learners	UMFOLOZI TVET COLLEGE	UMFOLOZI TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	30-Mar-15	30-Jun-18
NCV Learners	UMFOLOZI TVET COLLEGE	UMFOLOZI TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	28-Mar-19	30-Sep-23
NCV Learners	VUSELELA TVET COLLEGE P2	VUSELELA TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	30-Mar-15	30-Jun-18
NCV Learners	VUSELELA TVET COLLEGE	VUSELELA TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	14-Mar-19	30-Sep-23
NCV Learners	WATERBERG TVET COLLEGE	WATERBERG TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	24-Feb-16	31-Mar-20
NCV Learners	WEST COAST TVET COLLEGE P2	WEST COAST COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	03-Mar-16	31-Mar-20
NCV Learners	WESTCOL TVET COLLEGE	WESTCOL TVET COLLEGE	TVET College	The main purpose is the support NCV (4) students to obtain trade tested artisan status	11-Mar-19	30-Sep-23
QCTO CEP Pilot Project	EKURHULENI EAST TVET COLLEGE	EKURHULENI EAST TVET COLLEGE	TVET College	To develop occupational qualifications and part qualifications.	28-Jan-15	31-Mar-19
Spraypainting Simulator (TVET)	MOTHEO TVET COLLEGE	MOTHEO TVET COLLEGE	TVET College	To train TVET students to become artisan.	24-Mar-17	30-Sep-18
Spraypainting Simulator (TVET)	NORTHERN CAPE URBAN TVET COLLEGE	NORTHERN CAPE URBAN TVET COLLEGE	TVET College	To train TVET students to become artisan.	30-Mar-17	31-Mar-20
Spraypainting Simulator (TVET)	NORTHLINK TVET COLLEGE	NORTHLINK COLLEGE	TVET College	To train TVET students to become artisan.	14-Mar-17	31-Mar-20
Spraypainting Simulator (TVET)	ORBIT TVET COLLEGE	ORBIT TVET COLLEGE	TVET College	To train TVET students to become artisan.	24-Mar-17	30-Sep-18
Spraypainting Simulator (TVET)	SEDIBENG TVET COLLEGE	SEDIBENG TVET COLLEGE	TVET College	To train TVET students to become artisan.	13-Mar-17	30-Sep-18
TUT	TUT-INSTITUTE OF ADVANCE TOOLING	TUT-INSTITUTE OF ADVANCE TOOLING	TVET College	There are two TuT contracts. The 2016 contract had multiple interventions, including research & the 2018/19 contract only focuses on P1/P2 students.	14-Mar-16	30-Jun-18
TVET Quality Prog Skills	WEST COAST COLLEGE	WEST COAST COLLEGE	TVET College	Development of TVET Lecturers and trainers	27-Mar-19	31-Mar-22
Bursaries	NUMSA INVESTMENT COMPANY (PTY) LTD	NUMSA INVESTMENT COMPANY (PTY) LTD	Union	Worker education, inclusive of shop steward training.	22-Mar-19	31-Mar-20
Worker Initiated Project	LIBERATED METALWORKERS UNION OF S A	LIBERATED METALWORKERS UNION OF S A	Union	Worker education, inclusive of shop steward training.	17-Aug-18	31-Mar-20
Worker Initiated Project	MOTOR INDUSTRY STAFF ASSOCIATION	MOTOR INDUSTRY STAFF ASSOCIATION	Union	Worker education, inclusive of shop steward training.	13-Mar-17	30-Sep-18

PROJECT NAME	Partner Name 1	Partner Name 2	TYPE	Primary Objective	Start Date	End Date
Worker Initiated Project	NUMSA INVESTMENT COMPANY (NIC)	NUMSA INVESTMENT COMPANY (PTY) LTD	Union	Worker education, inclusive of shop steward training.	22-Dec-16	30-Sep-18
Worker Initiated Project	NUMSA INVESTMENT COMPANY (PTY) LTD	NUMSA INVESTMENT COMPANY (PTY) LTD	Union	Worker education, inclusive of shop steward training.	29-Jul-18	31-Mar-19
Worker Initiated Project	SOLIDARITY UNION	SOLIDARITY UNION	Union	Worker education, inclusive of shop steward training.	30-Mar-17	30-Sep-18
Worker Initiated Project	SOLIDARITY UNION	SOLIDARITY UNION	Union	Worker education, inclusive of shop steward training.	26-Mar-19	31-Mar-21
Worker Initiated Project	UASA	UASA	Union	Worker education, inclusive of shop steward training.	19-Jan-17	30-Sep-18

ANNEXURE 3: THE MERSETA CONTINUOUS IMPROVEMENT PLAN 2019

merSETA
MANUFACTURING, ENGINEERING AND RELATED SERVICES SETA

SECTOR SKILLS PLAN

CONTINUOUS IMPROVEMENT PLAN

2019

1 INTRODUCTION

This report provides an update of the Continuous Improvement Plan (CIP) submitted to the DHET in August 2018, this plan is relevant for the 2019/2020 period. It documents key challenges faced by the Strategy and Research Division within the merSETA in providing a credible and comprehensive Sector Skills Plan. It also considers the merSETA's overall research strategy, as it relates to Sector Skills Planning.

2 CIP SUMMARY TABLE

NO.	MATTER	CURRENT STATUS	PROGRESS MADE	ACTION PLAN
1.	**Research Agenda and Strategy**	A research agenda for 2019-2020 is in process of being updated. The Strategy and Research Division will embark on a number of new research partnerships to capacitate the research team and support student development through research. The division has made significant progress in terms of its knowledge management approach. The meSETA is in the process of implementing an integrated Enterprise Content Management (ECM) system to improve data and information governance and management for planning, evidence based decision making and operational efficiency. Monitoring and evaluation is entrenched for reporting as well as organisational efficiencies. More than 5 evaluations studies have been undertaken to assess impact, record best practice and recommend improvements. Knowledge products are shared internally to ensure the organisation is aware of research outputs, findings and recommendations.	Projects Completed include the Supply and Demand study which looked at the skills requirements of each of the mer sectors by province and enterprise type (small, medium, large, cooperative and informal) Projects underway include: • Understanding youth livelihoods to better assist them through skills development; • Developing a solidarity model so that learners can learn work through a learner driven association; • A study to assess the needs of black industrialists in the mer sectors; • an HEI partnership to assess progress in the mer sectors with respect to the green economy; • a partnership to review occupations, map job titles and develop an Atlas of Occupations for the mer sectors with an indication of how these will morph or change in the future; • tracer study to assess learner destinations 12 moths after completing and intervention which included a workplace based learning component • A number of evaluation studies including evaluation of the Training Layoff Scheme, Persons with Disabilities Project and the various pathways to becoming a trade tested artisan; and	Finalise research agenda. Ongoing M&E in light of evaluation findings and recommendations (refinement of programmes). Fostering partnerships to strengthen skills planning and development

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			• Review of systems and processes in line with the proposed ECM system to promote the interoperability of data systems for improved monitoring and reporting.	
2.	**Collaboration with HEI, TVET Colleges and other SETAs**	The merSETA has many partnership agreements in place with HEIs, TVET Colleges, Government Departments, Civil Society as well as with its own stakeholders who form part of the Chambers. These Chambers include employers, labour unions and employer bodies. The merSETA actively participates on collaborative initiatives with other SETAs such as the PSET Forum Working Group and Collaborative Research Working Group. This allows the research team to network with colleagues in the PSET sector and keep abreast of developments from a research perspective. The Goods Cluster of SETAs have committed to working collaboratively on a research project for future skills.	New Partnerships, strategic planning is needed to establish these partnerships: • Improved methodologies for determining Priority Skills and Forecasting to meet future demand • Social economy – using the SETA networks to effect partnerships that foster community development and enterprise development in rural and township economies • Closer partnership with industry and education to put in place greater efforts for R&D with respect to business processes and skills needed to compete at a global level	Continue to establish new partnerships that are needed in light of the SSP and aligned to merSETA Strategy and APP updates.
3.	**Improving data sources**	Over the past two years merSETA have put in place a new data management system which assists processing of transactional data as per the merSETA mandate as well as ensuring that we improve data quality. In the process of designing the system, business processes were mapped and data requirements were reviewed to ensure an improved user experience and also improved data quality.	The new system provides unit level data for Mandatory Grant data which has ensured that the merSETA assists with the requirements of the WSS and also allows for more analysis of labour market information for the SSP. The new system will make organisational data easier to navigate, allowing for a data centric approach in all research activities. Deeper analysis of QMR and grant distribution data makes it easier to track PIVOTAL and establish demand for skills. More refinement of data to include skill gaps per occupation	Investigate a forecasting model for the mer-sectors to refine skills demand analysis. Discuss with the DHET a possible methodology that is more forward looking. Current, the methodology is felt to be too focused on the present by mer-sector stakeholders.

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			and highest level of education per employee Using the WSP more strategically – review data quality and capacitate stakeholders to use it as a tool for skills development and not only to recoup levies	
4.	**OFO and Sector PIVOTAL list**	The OFO Coordinator in conjunction with the Curriculum Development unit represents the merSETA and assist with requests/queries related to the OFO. Embarking on a research partnership with Wits REAL to establish core occupations in each of the mer-sectors based on value chains as well as how occupations will change based on new technologies. This will be in the form of an Atlas of Occupations.	Continue to play a leadership role in the development of new qualifications and quality assurance. Continue to monitor sector needs in terms of occupations and qualifications. Highlight key occupations for the sector by developing an Atlas of Occupations. This will also include mapping of occupations and job titles.	Continue monitoring sector requirements, adjust and request updates as required. Continue to support efforts for improved data reliability and validity with respect to the OFO through capacity building workshops. Continued dialogue and understanding with sector employers.
5.	**Developing mechanisms for Skills Planning and LMIP**	New NSDMS System: • Allows for better LMI • Ensures reporting is in line with rigorous LMI protocols Explore methodologies for improved skills planning through better LMI.	The new system has been implemented. Review methodologies for skills planning with the SETA fraternity and DHET SSP support. Support new initiatives on the LMIP with the DPRU.	The merSETA continues to reflect on the findings of the LMIP to innovate around its approach to skills planning, projects and the implementation of interventions.
6.	**Alignment with Government Priories**	1. Partnerships have been established to support government imperatives such as training for people with disabilities, training provision in rural areas, upskilling and reskilling through UIF and TLS	Continued support for priority areas through partnerships.	Continued monitoring of mechanisms already in place. Establish new projects in support of

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		efforts in partnership with the Department of Labour. 2. Have reviewed skills needs for the manufacturing sector as highlighted in the IPAP in the 2018/2019 SSP. **3.** Supporting skills development in the blue and green economies as well as small business and cooperatives sector through partnership.		government priorities. Continued support of skills development in the blue and green economies as well as small business and cooperatives sector through partnership with HEIs to support R&D in support of government priorities. Continued monitoring of mechanisms already in place. Establish new projects in support of government priorities.
7.	**Research Capacity in the system**	A competent research unit has been put in place since 2016. The research unit as well as members of the broader division actively participate on the PSET Forum, the SSP forum, SSP working groups and the Goods Cluster forum. Enhanced research capacity established through partnerships with HEIs.	Capacity developed in the unit in terms of research methods and tools. Refinement of methodologies with respect to skills planning is ongoing.	Continued collaboration with HEIs. Continued capacity development of junior staff. Collaboration on methodologies with the SETA cluster. Greater efforts to ensure knowledge transfer among partners, service providers and colleagues.
8.	**Career Advice System**	• Career bus • Career guide	All current efforts are in place and working well.	merSETA Career Development Framework being

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		• You tube channel showcasing videos of careers • Call centre • Regional office support • Learnership and apprenticeship pamphlets and information booklets		developed incorporating: • Indigenous Career Management Interventions for youth and adults • RPL Mechanism-Career Practitioners • African Peer Review Career Development Journal • Annual SA Career Practitioner Research Congress
9.	**Role of Accounting Authority in the development of the SSP**	Approval and sign-off of the SSP by the Accounting Authority. Sub-committees of the AA oversees the SSP process.	Approval and sign-off of the SSP. The Governance and Strategy Committee, a sub-committee of the Accounting Authority oversees the development of the SSP. The committees have been re-established in 2018.	Continued support of research agenda and skills planning processes for the SSP through the sub-committee structures.
10.	**Stakeholder engagement in preparation for the SSP**	Chambers: • Chamber research projects support the SSP • Chambers review the SSP and the PIVOTAL list methodology and outputs • Interviews are conducted with sector leaders. Internal stakeholders (merSETA managers and staff) are also involved in preparing the SSP for submission, particularly with respect to projects, partnerships	Research projects completed by chambers • Interviews conducted • Chamber consultations	Review additional efforts to enhance methodologies and secure greater credibility among stakeholders such as a survey for workers, learners, employers and training providers etc.

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		and research that is not housed in the SSP unit.		

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