merSETA
MANUFACTURING, ENGINEERING AND RELATED SERVICES SETA

SECTOR SKILLS PLAN

UPDATE

2014/15-2018/19

PROMOTING ARTISAN DEVELOPMENT FOR EMPLOYABILITY

30 September 2014

Official Sign Off

It is hereby certified that this *updated draft version* of the Sector Skills Plan takes into account all the relevant policies, legislation and other mandates for which merSETA is responsible and reflects the guiding principles for SSP development as communicated by the DHET

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ABBREVIATIONS AND ACRONYMS

AATP	Accelerated Artisan Training Programme
ABET	Adult Basic Education and Training
AIDS	Acquired Immune Deficiency Syndrome
AIS	Automotive Investment Scheme
AMEO	Automobile Manufacturers Employers Organisation
APDP	Automotive Production and Development Programme
AQP	Assessment Quality Partner
ATD-TTT	Artisan and Technologist Development Technical Task Team
ATR	Annual Training Report
BACSA	Business Against Crime South Africa
BAW	Beijing Automotive Works
B-BBEE	Broad-based Black Economic Empowerment
BEE	Black Economic Empowerment
BRIC	Brazil, Russia, India and China
BUSA	Business Unity South Africa
CAD/CAM	Computer-Aided Design/Modelling
CBMT	Competency Based Modular Training
CEO	Chief Executive Officer
CETEMF	Capital equipment, transport equipment, metal fabrication
CHE	Council for Higher Education
CIACM	Competitiveness Improvement of Automotive Component Manufacturers
CNC	Computer Numerical Control
CO2	Carbon Dioxide
COSATU	Congress of South African Trade Unions
CPD	Continuous Professional Development
CSDP	Competitive Supplier Development Programmes
CSIR	Council for Scientific and Industrial Research
CSP	Customised Sector Programme
DBSA	Development Bank of Southern Africa
DEA	Department of Environmental Affairs
DHET	Department of Higher Education and Training
DMR	Department of Mineral Resources
DoL	Department of Labour
DPSA	Disabled People of South Africa
DQP	Development Quality Partner
dti	Department of Trade and Industry
ECSA	Engineering Council of South Africa
EDD	Department of Economic Development
EMIS	Education Management Information System
EPWP	Expanded Public Works Programme
ERA	Enterprise Reference Architecture

ESSA	Employment Services South Africa
ETQA	Education and Training Quality Assurance body
EV	Environmental Vehicle
FAW	First Automobile Works
FLC	Foundational Learning Competence
g	Gram
GDP	Gross Domestic Product
GET	General Education and Training
GFETQF	General and Further Education and Training Qualifications Framework
GVA	Gross Value Added
GWM&E	Government-Wide Monitoring and Evaluation
HEMIS	Higher Education Management Information System
HET	Higher Education and Training
HETQF	Higher Education and Training Qualifications Framework
HIV	Human Immunodeficiency Virus
HRDSSA	Human Resources Development Strategy for South Africa
HSRC	Human Sciences Research Council
IDC	Industrial Development Corporation
IDZ	Industrial Development Zone
IMF	International Monetary Fund
INDLELA	Institute for the National Development of Learnerships, Employment Skills and Labour Assessments
IPAP	Industrial Policy Action Plan
ISOE	Institutes for Sectoral or Occupational Excellence
ITE	Institute for Training Excellence
km	Kilometre
LMI	Labour Market Intelligence
MaaS	Mobility-as-a-Service
MBA	Master of Business Administration
MCEP	Manufacturing Competitiveness Enhancement Programme
MEIBC	Metal and Engineering Industries Bargaining Council
merSETA	Manufacturing, Engineering and Related Services Sector Education and Training Authority
MHCV	Medium and Heavy Commercial Vehicles
MIBCO	Motor Industry Bargaining Council
MIDP	Motor Industry Development Plan
MOU	Memorandum of Understanding
MQA	Mining Qualifications Authority
MTSF	Medium Term Strategic Framework
NAACAM	National Association of Automotive Component Manufacturers
NAAMSA	National Association of Automotive Manufacturers of South Africa
NAMB	National Artisan Moderation Body
NATED	National Technical Education
NBF	National Bargaining Forum
NCA	National Credit Act

NCV	National Certificate (Vocational)
NDP	National Development Plan
Nedlac	National Economic Development and Labour Council
NEET	Not in Employment, Education or Training
NFTN	National Foundry Technology Network
NGO	Non-governmental Organisation
NGP	New Growth Plan
NOPF	National Occupations Pathways Framework
NQF	National Qualifications Framework
NSDS	National Skills Development Strategy
NSF	National Skills Fund
NSFAS	National Student Financial Assistance Scheme
NTI	National Tooling Initiative
NUMSA	National Union of Metalworkers of South Africa
NYDA	National Youth Development Agency
OEM	Original Equipment Manufacturers
OFO	Organising Framework for Occupations
OLS	Ordinary Least Squares regression
OQF	Occupational Qualifications Framework
PDI	Previously Disadvantaged Individual
PICC	Presidential Infrastructure Coordination Committee
PIVOTAL	Professional, Vocational, Technical and Academic Learning
PlasticsSA	Plastics Federation of South Africa
PPP	Public-Private Partnership
PRASA	Public Rail Agency of South Africa
PWD	People with Disabilities
QCTO	Quality Council for Trades and Occupations
QLFS	Quarterly Labour Force Survey
R	Rand
R&D	Research and Development
RAP	Retrenchment Assistance Programme
Redisa	Recycling and Economic Development Initiative of South Africa
Rm	Rand (million)
RMI	Retail Motor Industry
RPL	Recognition of Prior Learning
SA	South Africa/South African
SAA	South African Airways
SABS	South African Bureau of Standards
SADC	Southern African Development Community
SAGDA	South African Graduates Development Association
SAPRO	South African Plastics Recycling Organisation
SAQA	South African Qualifications Authority
SATMC	South African Tyre Manufacturers Conference
SDL	Skills Development Levy

SEDA	Small Enterprise Development Agency
SEIFSA	Steel and Engineering Industries Federation of South Africa
SET	Science, Engineering and Technology
SETA	Sector Education and Training Authority
SEZ	Special Economic Zone
SIC	Standard Industrial Classification
SIP	Special Infrastructure Project
SME	Small- and medium enterprises
SMME	Small, medium and micro-enterprises
SOC	Standard Occupational Classification
SOE	State Owned Enterprise
SSP	Sector Skills Plan
Stats SA	Statistics South Africa
TREE	Training for Rural Economic Empowerment
TVET	Technical & Vocational Education and Training college
UIF	Unemployment Insurance Fund
US	United States
VAT	Value Added Tax
W&RSETA	Wholesale and Retail Sector Education Training Authority
WSP	Workplace Skills Plan
WTO	World Trade Organisation

SYNOPSIS

The Manufacturing, Engineering and Related Services Sector Education Training Authority (merSETA) has prepared this fourth annual update of its Sector Skills Plan (SSP) 2011/12-2015/16 in response to the requirements as set out by the Department of Higher Education and Training (DHET) in the National Skills Development Strategy III (NSDS III), as well as more recently released documents. This SSP spans the financial years 2014/2015 to 2018/2019.

This SSP considers a wide range of national policy imperatives that seek to support inclusive sectoral growth and that advance both economic growth and the national social development and transformation agenda. Those policies that relate directly to skills development include: the Skills Development Act (2008), the NSDS III, and the second Human Resources Development Strategy for South Africa (HRDSA II). Strategies that focus more directly on economic growth and social development include: the National Development Plan; the New Growth Plan; the Medium Term Strategic Framework (MTSF); the National Skills Accord; the latest revision of the Industrial Policy Action Plan (IPAP); the Department of Trade and Industry's Special Economic Zones (SEZ) policy; the Department of Environmental Affairs' (DEA) "Integrating the Environmental Driver into Sector Skills Plans: An Enabling Document for all SETAs", and the Expanded Public Works Programme (EPWP), all of which directly or indirectly support the National Development Plan. Finally, monitoring and evaluation policies such as the Policy Framework for Government-Wide Monitoring and Evaluation (GWM&E) are also important.

The overall profile of the merSETA sector, which includes the automotive, metal and plastics manufacturing sectors, remains largely unchanged. This is in terms of: its high levels of global integration; its geographical concentration in urban areas and particularly in Gauteng; the racial and gender breakdown of employees, with blacks and females being under-represented in certain occupations and at the professional and management levels; the high levels of unionisation among employees; and high levels of organisation among employers and among the professionals employed within the sector. A trend that continues is the long-term shift towards a greater proportion of skilled and highly-skilled workers. Emerging trends that have been identified as likely to have an increasing impact on the performance of the merSETA sectors into the future include: the emerging Green Agenda and the environmental impact of manufacturing production and product life-cycle management; the increasing global use of social media; diversified consumer financing methods; and changing population dynamics that include an aging global population and a growing middle class in South Africa.

An analysis of the economic performance of merSETA sectors over the past year highlights the ongoing negative impact of the recent recession and the associated global economic uncertainty. Underlying structural problems in the SA economy that were fore-fronted through the global recession continue to undermine growth in the merSETA sectors.

In this light, it is unsurprising that the range of government strategies and policies aimed at addressing these problems in order to support economic and employment growth have not yet yielded substantial positive outcomes. Rather than increases in employment, the merSETA sector saw a significant, from 653 800 in 2011/12 to 641 960 in 2013/14, representing 12 00 jobs lost. In further contrast to employment creation goals, industry expects further employment declines through 2014 due to labour strikes, reduced productivity and subdued permanent employment.

merSETA's skills forecasting model will be reviewed in light of the current economic climate to test the assumptions made in the 2013/14 reporting year.

The analysis undertaken for and presented in this SSP draws on a range of information sources. These sources include the merSETA's Workplace Skills Plans; data from Quantec that is based on the National Accounts; and other sources such as data sets and publications of Statistics South Africa, the Higher Education Management Information System (HEMIS) and industry associations including the National Association of Automobile Manufacturers of South Africa (NAAMSA). Additional and foundational data sources are the merSETA's own commissioned research. Data from these sources was augmented with research conducted by other national research institutions, industry publications and the media. At all stages of the development of this SSP, representatives from each of the merSETA chambers were consulted for input and approval.

Again highlighted through the current analysis are the broad categories of sector skills development needs: technical skills required for general success in the work environment; fundamental work-readiness skills which include aspects such as problem-solving, team work, communication etc.; health and safety; HIV/AIDS awareness and prevention; ABET; Recognition of Prior Learning (RPL); the development of black managers; skills to meet the needs of increasing environmental demands and the Green Agenda; and training and development of retrenched employees.

The merSETA 2014 Scarce and Critical skills list consists of 28 occupations. This list represents an analysis of the 2014 Workplace Skills Plans, in which companies were asked to identify and quantify (through vacancies) scarce and critical occupations, was undertaken based on a range of filters.

Interventions must seek to address skills shortages across the occupational range, with those aimed at plant and machine operators and assemblers and elementary workers likely to yield short term results compared to the interventions aimed at addressing the shortages at the artisan, technician, professional and management levels, where training capacity is limited and training interventions are both costly and time consuming. The focus on changing the racial and gender profile of the merSETA sectors at the higher occupational levels must receive sustained focus, with results only likely to show in the medium to longer term.

Overall, if merSETA funded skill development initiatives are to remain relevant to the sector as a whole and equitable to all employees (both current and future), merSETA must continue to focus attention on the broad categories of skills development needs in addition to increasing its focus on addressing the specific scarce and critical skills needs that emerged during this SSP process.

1 INTRODUCTION

1.1 BACKGROUND

According to the National Skills Development Strategy 2011/12 to 2015/16 (NSDS III) all Sector Education and Training Authorities (SETAs) are required to submit an annual update to their 5 year SSPs in order that the skills planning process can take into account the impact of new policies and legislation and for the purpose of monitoring progress towards set targets. This document represents the fifth annual revision of the merSETA SSP in the NSDS III period and spans the financial years 2014/2015 to 2019/2020.

It is crucial that this updated SSP be read in conjunction with the merSETA's Strategic Plan, as the SSP provides background and baseline information for the Strategic Plan for the sector.

1.2 PROCESS FOLLOWED IN THE DEVELOPMENT OF THIS SSP

No single database currently provides a complete and comprehensive profile of the merSETA sector as it has been defined for the purposes of the Skills Development Act. For this reason, a range of data sources had to be used in the development of this SSP. These sources are outlined below.

- The merSETA's workplace skills plans (WSPs) provide data on sector employment by chamber and demographic and occupational profile of employees. Although the WSPs submitted in April 2014 represent only 31% of the levy-paying organisations in the sector, they represent 74% of the total levies paid. As there is a direct relationship between levies paid and employment, it stands to reason that the WSPs represent the majority of employees in the sector. For this reason the data from this source was used in the compilation of the sector profile. In order to extrapolate the data to the total sector and to compensate for the levy-paying organisations that didn't submit WSPs, the data were weighted. A detailed explanation of the methodology and the weights applied can be seen in Appendix 1.

  It must be noted that the data for the WSPs was collected according to Organising Framework for Occupations (OFO) version 2012 and 2013. However, version 9, which differs substantially from OFO 10 was also used. In the preparation of this SSP update all occupation-related information was converted to OFO version 2013.

- Data provided by Quantec and based on the National Accounts data were also used extensively, particularly in relation to the economic performance of the cluster of sectors that most closely match the merSETA sector.

- Other national data sources used include a range of statistical publications by Statistics South Africa (StatsSA), the Higher Education Management Information System (HEMIS) maintained by the DHET, and

data on the new vehicle production and sales sector in South Africa released quarterly by the National Association of Automobile Manufacturers of South Africa (NAAMSA).

In addition to the quantitative data sources outlined above, the merSETA has also undertaken a range of research projects based on its research agenda. Several of these research projects contributed to the understanding of the metal, automotive and plastics manufacturing industries and were thus utilised in the preparation of the SSP. These sources were augmented with research conducted by other government departments, national research institutions, industry publications, and the media.

1.2.1 Sector participation and consultation

Broad industry consultation was undertaken for the previous annual update of late 2013 and early 2014 industry representatives also contributed extensively to the research projects undertaken by each of the merSETA Chambers as well as to the first round of Regional Sector Skills Plans.

This SSP update was developed by the research office of merSETA with the consultation of merSETA accounting authority and chamber members. A task team was specifically constituted for this purpose. The task team provided input on the draft SSP, and provided direct information, access to sector-specific information, and engaged their Chambers on particular issues where broader input was required for this update.

1.3 THE POLICY CONTEXT FOR SKILLS PLANNING

Sector skills planning in South Africa must take into account a wide range of policy imperatives that seek to support inclusive sectoral growth paths that advance economic growth, social development and the transformation agenda. These policies include those that relate directly to skills development, those that focus more directly on economic growth and social development, and those that focus on monitoring and evaluation. This section briefly considers the most important policies that have been taken into consideration in the development of this SSP. In Chapter 7 of this document, the merSETA's priorities are linked to specific policies more directly.

1.3.1 Skills development legislation and strategies

The National Skills Development Strategy (NSDS) is the overarching strategic guide for skills development and provides SETAs with direction for sector skills planning and implementation that is in line with wider national goals and objectives. NSDS III – which was launched in January 2011 and follows the integration of higher and further education and skills development into a single department of higher education and training – governs SETA activities over the period 2011 to March 2016. The strategy places great emphasis on relevance, quality and

sustainability of skills training programmes so as to ensure that they impact positively on poverty reduction and inequality.[1]

NSDS III has eight broad goals namely to:

- Establish a credible institutional mechanism for skills planning;
- to increase access to occupationally directed programmes;
- to promote the growth of a public Technical &Vocational Education and Training (TVET) college system that is responsive to skills needs and priorities at sector, local, regional and national levels;
- to address the low level of youth and adult language and numeracy skills to enable additional learning;
- to encourage better use of workplace-based skills development;
- to encourage and support cooperatives, small enterprises, worker-initiated, NGO and community training initiatives;
- to increase public sector capacity for improved service delivery and supporting the building of a developmental state; and
- to build career and vocational guidance.

Implementation of the NSDS III goals is to be guided by and measured against seven key developmental and transformation imperatives namely race, class, gender, geography, age, disability, and the HIV and AIDS pandemic. The document reinforces the role of partnerships between all the responsible stakeholders, namely; government, business organisations, trade unions, constituency bodies, SETAs, public bodies, employers, trade and professional bodies, public and private training providers, community-based organisations, cooperatives and non-governmental organisations (NGOs) as critical to achieving these goals.

NSDS III forms a subcomponent of the second Human Resources Development Strategy for South Africa (HRDSSA II), operating concurrently over the same five-year period. In support of the HRDSSA II, SSPs need to reflect a commitment to addressing priority skills shortages; developing sufficient skills to meet social- and economic-development demands; improving universal access to quality basic education; developing skills that assist in reducing poverty and unemployment; focusing on skills development among the youth; improving national technological and innovation capacity for enhanced national economic competitiveness; developing skills for

[1] DHET (2011) National Skills Development Strategy III.

improved public sector capacity; and establishing effective and efficient planning capabilities in respect of skills development.[2]

1.3.2 Economic growth and development strategies

The Medium Term Strategic Framework (MTSF) 2009-2014 lists ten strategic priorities that are meant to guide planning and resource allocation across all spheres of government. While Strategic Priority 4, which is to "strengthen the skills and human resource base", refers specifically to skills development, this must be seen as a cross-cutting priority and that "the creation of decent work at a large scale and investment in quality education and skills development, are at the centre of the government's approach".[3] merSETA in its strategic priorities have committed to ensuring a balanced approach to skills development, committed to producing enough skills needed by industry but also ensuring high quality.

The National Planning Commission released SA's first National Development Plan (NDP) in November 2011. The major focus of the plan is the eradication of poverty and the reduction of inequality by 2030, thus offering a long-term perspective and defining the desired destination and the role that each sector of society must play in achieving it. The plan aims to create jobs in the economy through a range of strategies that include shifting the economy away from its traditional reliance on resource-intensive industries towards more labour-intensive beneficiation activities. Among other interventions, improving education and training forms a key pillar for achieving this.[4] The NDP now stands as the overarching vision guiding resource allocation, and the implementation of most other government social and economic policies.

The New Growth Path is the SA government's macro-economic policy. It was first announced by the Department of Economic Development (EDD) in October 2010. This plan is aimed at guiding national economic growth over the short- to medium-term. Using employment creation as a force for sustainable development, critical for the merSETA is the aim of training engineers and artisans for economic growth in labour intensive industries.

Similar to the way in which the NDP now forms an umbrella for national development policies and strategies, the dti's Industrial Policy Action Plan (IPAP, of which the 2014/15 – 2016/17 is the latest update) emphasises alignment with the National Infrastructure Plan being implemented under the guidance of the Presidential Infrastructure

[2] DHET (2011) National Skills Development Strategy III, progress report http://www.dhet.gov.za/Booklets/NSDS%20III%20Progress%20Report%20-%207%20October%202013%20-%20V11.pdf

[3] The Presidency (2010) Together doing more and better, Medium Term Strategic Framework: A Framework to Guide Government's Programme in the Electoral Mandate Period (2009-2014).

[4] National Planning Commission (2011) National Development Plan: Vision for 2030. http://www.npconline.co.za/medialib/downloads/home/NPC%20National%20Development%20Plan%20Vision%202030%20-lo-res.pdf, Accessed 23 November 2011.

Coordinating Committee (PICC). These comprise 18 Strategic Integrated Projects designed to underpin industrial development in South Africa.

IPAP indicates that seven sets of policies are critical for achieving a scaled-up industrial policy and a shift towards strengthening the productive side of the economy in general. Two of the three clusters will receive primary focus. Of relevance to the merSETA in Cluster 1 is the potential of the metal fabrication, capital and transport equipment sector that arises from large infrastructure investments. In Cluster 2 the focus is on the automotive, components, and medium- and heavy commercial vehicles and on the plastics, pharmaceuticals, and chemicals sector.[5]

One of the recent policies intended to support the implementation of IPAP is the dti's Special Economic Zones (SEZ) policy.[6] In August 2013 legislation was endorsed by the National Assembly and National Council of Provinces Trade and Industry Portfolio Committees that will enable the graduation of Industrial Development Zones into Special Economic Zones[7]. The SEZs are important instruments to support long term industrial and economic development. It is the intention that industrial production in the SEZ's will focus strongly on support for the manufacture of value-added goods. Once designated, the SEZs should create backward and forward linkages between companies inside and outside of these zones and build and strengthen localisation and supplier development programmes[8].

The National Skills Accord[9] was one of the first outcomes of social dialogue on the New Growth Plan. This accord was entered into, between government, business, labour and civil society and was signed in July 2011. The accord consists of the following eight commitments:

1) To expand the level of training using existing facilities more fully.

   Under this commitment the stakeholders agreed that 30 000 new artisan learners would enter training in the 2012/2013 financial year. Fifty-six percent (16 800) of these should come from the private sector.

2) To make internship and placement opportunities available within workplaces.

   According to this commitment, each year companies will make 12 000 placements/internship spaces available for students who complete their certificates at TVET colleges, 5 000 internships available for third-year students at universities of technology who need the work experience as part of their qualifications, and they will provide opportunities for training exposure in a work environment to at least 16 000 lecturers at TVET colleges. This will be phased in, with 20% of the target to be achieved in 2011, 50% in 2012, and

[5] dti (2010) Industrial Policy Action Plan 2010/11-2012/13: Economic sector and employment cluster, February 2010.

[6] dti (2012) Policy on the Development of Special Economic Zones in South Africa: For public comment only.

[7] dti(2014) Industrial Policy Action Plan: Economic Sectors and Employment Cluster IPAP 2014/15 - 2016/17.

[8] dti(2014) Industrial Policy Action Plan: Economic Sectors and Employment Cluster IPAP 2014/15 - 2016/17.

[9] EDD (2011) The New Growth Path: Accord 1 National Skills Accord.

100% from 2013. The parties also agreed to work together to improve both the capacity and quality of TVET colleges.

3) To set guidelines of ratios of trainees, artisans as well as across the technical vocations, in order to improve the level of training.

   Under this commitment businesses should set targets of the ratios of trainees that qualified personnel they should have in order to ensure that there are sufficient numbers of persons in the training pipeline. These ratios should be stretch targets in order to improve significantly on current performance.

4) To improve the funding of training and the use of funds available for training and incentives in companies that carry out training.

   This commitment includes various provisions, the most relevant of which is business's commitment to improve spending on training that companies undertake beyond the 1% compulsory training levy. Business will urge companies to spend between 3% and 5% of payroll (total salary bill) on training, with as many companies as possible at the high end of this range.

5) To set annual targets for training in state-owned enterprises.

6) To improve SETA governance and financial management as well as stakeholder involvement.

7) To align training to the New Growth Plan and improve SSPs.

8) To improve the role and performance of TVET colleges.

Also in support of the New Growth Plan, government announced its Strategic Infrastructure Projects (SIPs) programme in February 2012. These major projects will impact on the social development infrastructure in all of SA's nine provinces and are to be linked to local training and job creation.[10] Government has released a SIPs Scarce Skills List, which SETAs are expected to actively engage with and incorporate into their skills planning in the current SSP.[11]

The Department of Environmental Affairs (DEA) has done substantial work exploring the implications of the 'green' economy imperative for industry, including the labour and skills development implications. The DEA's "Integrating the Environmental Driver into Sector Skills Plans: An Enabling Document for all SETAs" provides direction to SETAs about the way in which the environmental agenda should be considered and integrated into SETA skills

[10] DHET (2012) The role of SETAs on Infrastructure Development and Refurbishment of FET colleges, presentation by Maliviwe Lumka, 30 May 2012.?

[11] Presidential Infrastructure Coordination Commission (2013) SETAs and SIPs, 11 July 2013.

development planning processes. Guidelines for the merSETA are directly included and will be used by the DEA in its review of the SSP.[12]

1.3.3 Monitoring and evaluation strategies

Most important in this group is the "Policy Framework for Government-Wide Monitoring and Evaluation" (GWM&E),[13] released by the Presidency in 2007. This is the policy instrument through which government aims to fulfil its constitutional mandate to promote "economy, efficiency, effectiveness and equity "in the use of national resources. It is important to note that responsibility for achieving these constitutional provisions is deferred to oversight bodies with such allocated responsibilities. The merSETA, as a statutory body, is therefore responsible for monitoring and evaluating its own mandated activities using the criteria set out in the GWM&E.

1.4 STRUCTURE OF THE SSP

This SSP consists of seven chapters. Chapter 1 serves as an introduction to both the policy environment for skills development in South Africa, with a particular focus on the merSETA sector, and to the process followed in developing this SSP. Chapter 2 provides a descriptive profile of the sector. The chapter presents an overview of the three merSETA sectors namely the metal sector, the automotive sector, and the plastics manufacturing sector. Employment in the sector is then discussed from various perspectives. The chapter ends with a discussion of the various characteristics of the sector that have a particular impact on skills development priorities and programme implementation.

Chapter 3 gives an indication of the economic performance of the sector. Within the context of high levels of global integration, particularly for the metal and automotive sectors, this chapter considers the various factors that have an impact on the economic performance of the merSETA sector at present and into the future. Data on the economic growth of the sector and its subsectors are presented, and its contribution to national Gross Domestic Product (GDP). The chapter concludes by considering the range of government policies and strategies currently in place which aims at enhancing the sector's economic and employment growth.

Chapter 4 considers the sector's demand for labour. It gives an overview from a macro-economic perspective on where the sector is headed in terms of the skills required by industry. The chapter then makes reference to the future demand as proposed by the forecast model which was compiled in 2013.

[12] DEA (2009) Integrating the Environmental Driver into Sector Skills Plan: An Enabling Document for all SETAs, July 2010, Draft 2, https://www.google.co.za/search?q=DEA+%282009%29+Integrating+the+Environmental+Driver+into+Sector+Skills+Plan%3A+An+Enabling+Document+for+all+SETAs%2C+July+2010%2C+Draft+2&hl=en-ZA&gbv=2&nfpr=&spell=1&oq=&gs_l= http://skillsforbiodiversity.org.za/projects/human-resources-and-organisation-development-network/FINAL%20VERSION%20Environmental%20Driver%20Enabling%20Document%20Combined3.pdf, Accessed 9 September 2011.

[13] The Presidency (2007) Policy Framework for the Government-Wide Monitoring and Evaluation System.

Chapter 5 describes the supply of labour to the sector. A description of current supply (including both employed and unemployed workers) is supplemented by a discussion on the supply of new skills available for entry into the sector, as well as the development of skills among those already employed in the sector. The chapter also considers the extensive range of merSETA interventions aimed at alleviating skills shortages. Finally, the challenges related to the changing landscape of technical skills supply is discussed, followed by an overview of initiatives to improve occupational qualification development and quality assurance for this group of skills.

Chapter 6 provides an outline of broad categories of skills development needs as they emerge from this SSP is followed by more detailed information on specific priority skills in the sector which are determined through rigorous analysis and stakeholder inputs.

Chapter 7 forms the conclusion of this SSP. Within the context of a few key strategic issues, it outlines the five skills development priorities for merSETA – the culmination of the SSP development process. This chapter also outlines the merSETA's contribution to the strategic areas of focus of NSDS III, government's MTSF objectives, government's IPAP, the Special Infrastructure Projects (SIPs), the New Growth Plan and the National Skills Accord.

2 SECTOR PROFILE

2.1 INTRODUCTION

This profile chapter is intended to provide an overview of the merSETA sector. The description starts with a guide to the various sectors and subsectors that are included in the merSETA sector and to the specific terminology used in the rest of this SSP. This is followed by a brief overview of the three major industries that fall under the merSETA's jurisdiction: the metal, automotive, and plastics industries. A description of the organisations within the sector and the sector's employment profile is then given. The last part of the chapter describes the major sector characteristics that directly influence sector skills needs and requirements and, therefore, the work of the merSETA.

2.2 INDUSTRIAL COVERAGE

The merSETA, was established in 1999 for the purpose of the skills development legislation, included 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 that are used in capturing the data for the National Accounts, the table below outlines the industrial activities aligned to the merSETA scope of coverage.

Standard Industrial Classification Code (SIC)	Description
351 - 355	Basic iron and steel; non-ferrous metals and metal products
356 - 357	Machinery
337	Rubber Products
337	Plastics Products
381 - 383	Motor Vehicle, Parts & Accessories
631 - 653	Maintenance and repair of Motor Vehicles and fuel stations

Table 2-1 merSETA Sector Scope of Coverage

It is important to note that the revised SETA landscape associated with NSDS III (and thus applicable from 1 April 2011) saw the loss of petrol retail operations from the merSETA, with these moving to the Wholesale and Retail

SETA (W&RSETA),[14]At this stage it is not possible to separate fuel station operations from the data for the rest of the group.

Functionally, merSETA member companies belong to one of five chambers namely the:

- Metal Chamber which comprises firms involved in the manufacturing and servicing of capital equipment including transport equipment;
- the Auto Chamber which covers South Africa's seven large established automotive and commercial vehicle assemblers, also known as original equipment manufacturers (OEMs);
- the Motor Chamber which includes firms involved in the motor retail and service industries, as well as in the manufacture of automotive components;
- the New Tyre Chamber which consists of firms involved in the manufacture of new tyres; and
- the Plastics Chamber which includes firms involved in the manufacture of plastics products from locally manufactured and imported polymers.[15]

This five-chamber structure does not however totally align with the National Accounts data or with the references in the literature to the firms contained in this group, which generally refer to the metals industry, the automotive industry, or the plastics manufacturing industry. Furthermore, while the majority of merSETA firms fall within the overall manufacturing sector in the National Accounts data, and make up a sizeable proportion of total SA manufacturing, the merSETA also includes motor retail and service firms, which fall within the service and retail sectors. Within the merSETA metal and plastics firms are represented by one chamber each, while automotive firms are represented by three different chambers (Auto, Motor and New Tyre). Components manufacturing firms (national manufacturing sector), and motor retail and service firms (national services sector) are both included in the merSETA's Motor Chamber.

	merSETA					
SERVICES		MANUFACTURING				SECTORS / INDUSTRIES
OTHER	RETAIL	AUTOMOTIVE	METALS	PLASTICS	OTHER	
		Automotive and Commercial Vehicle Assembly	Capital Equipment	Polymer Producer		SUBSECTORS
		New Tyre	Transport Equipment	Plastics Convertors		
	Motor Retail & Repair	Components	Metal Fabrication	Plastic Fabrication		

[14] Skills Portal (2010) New SETA landscape announced, 9 November 2010, http://www.skillsportal.co.za/page/skills-development/898223-New-Seta-Landscape-announced, Accessed 9 September 2011.

[15] A recent study commissioned by merSETA's Plastic Chamber shows that about 84.3% of plastics firms surveyed paid their Skills Development Levies to merSETA. Other SETAs to which plastics firms belong include CHEITA and FP&M SETA (merSETA, 2013, Plastics Chamber Research Project).

			Other	Other		
Colour Key	**merSETA Chambers**					
	Metal Chamber		New Tyre Chamber			
	Plastics Chamber		Motor Chamber			
	Auto Chamber					

Figure 2-1 Conceptual map of sectors and subsectors and their relation to merSETA chambers[16]

While it is acknowledged that the specific sub-sectors within the merSETA chambers wish to see their specific chambers represented, this lack of alignment poses a challenge for most merSETA studies in respect of consistency in the use of both data and terminology, in particular for chamber groupings.

2.3 OVERVIEW OF THE MERSETA'S SECTORS

This section provides a brief overview of each of the merSETA's sectors and subsectors. In describing the profile of the sector in the rest of this chapter, these breakdowns are presented wherever possible.

2.3.1 The metal sector

The metal sector, including the capital equipment, transport equipment, metal fabrication (CETEMF) and related subsectors, forms a substantial part of SA's manufacturing. The production of this sector is based on the country's rich natural endowment in a wide range of metals. The metal sector value chain is divided into four stages. Stage 1 covers the primary stage of mining the metals. Responsibility for skills development for this part of the value chain resides with the Mining Qualifications Authority (MQA). Stage 2 covers the conversion of the ore or concentrate into bulk intermediate products (such as metals or alloys), with this process usually taking place in capital-intensive smelters or refineries. In Stage 3, foundries convert the intermediate products into castings, which form a key input into the final manufacturing stage. In Stage 4 the metal castings are processed into finished products for direct sale or for inclusion through assembly in larger products. Large-scale export of SA metals takes place after Stage 2 of the value chain.[17]

The merSETA Metals Chamber includes all companies operating at Stage 2 and Stage 3 of the metals value chain, as well as non-automotive-focused companies involved in Stage 4.

The basic iron and steel, non-ferrous metal products, metal products and machinery sector contributed 20.4% of total SA manufacturing sales between January and April 2014, which ranked third when compared to the petroleum, chemical products, rubber and plastic products sector (22.5%) and the food and beverages sector (23.8%). Within the sector basic iron and steel, non-ferrous metal products, metal products and machinery

[16] merSETA (2010) The impact of the 2008/9 global economic crisis on merSETA firms: A focus on employment and skills, EE Research Focus Pty (Ltd), with slight adaptations for the Plastics Chamber as suggested by PlasticsSA.

[17] The dti (2006) Metals Sector Development Strategy: Trade and Investment South Africa – Customised Sector Programme – Metals.

category, basic iron and steel products formed 23.0% of sales while non-ferrous metal products accounted for 17.0% of sales.[18]

2.3.2 The automotive sector (incorporating New Tyre Chamber and Motor Chamber)

The automotive sector includes companies linked to each other through the automotive production and distribution value chain. The metals, plastics and rubber products sectors provide key inputs into the automotive components manufacturing and vehicle assembly levels of the value chain.

SA has seven established locally based, multinationally owned vehicle assembly operations or OEMs. These assemble a range of passenger, light and heavy commercial vehicles. BMW South Africa, Nissan South Africa and Ford Motor Company South Africa are located in northern Gauteng; General Motors South Africa and Volkswagen South Africa are based in Port Elizabeth; the Mercedes-Benz South Africa plant is in East London, while Toyota South Africa is situated in Durban. This number recently increased with the opening in November 2012 of a Beijing Automotive Works (BAW) taxi assembly plant in Springs on the East Rand.[19] The newly constructed 2 500 m^2 Truck plant built by the Chinese automotive company First Automobile Works (FAW) in Coega, outside of Port Elizabeth, has already created 280 jobs and is expected to start its assembly line production in July 2014. The newly constructed plant will see an increase of OEMs located in the country[20] Local OEMs draw from both locally and internationally based suppliers, although current government policies are committed to deepening local content. Direct suppliers of components to the OEMs are referred to as "Tier 1 automotive suppliers", while companies that supply Tier 1 firms are referred to as "Tier 2 suppliers".

The SA-based automotive components manufacturing subsector and the new tyre subsector comprise a mix of domestically and multinationally owned companies. These firms supply products to both locally and internationally based OEMs and Tier 1 firms, in addition to the local and international replacement market or aftermarket.

Of the total SA manufacturing sales between January and April 2014, the category motor vehicles, parts and accessories and other transport equipment comprised 11.6%. Within this group the motor vehicles sub-group comprised 54.0% of sales value.[21]

Also included in the automotive sector are the downstream activities of vehicle retail, distribution and servicing, which fall outside of the manufacturing sector.

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[18] Stats SA, P3041.2 - Manufacturing: Production and Sales (various editions).

[19] Engineering News (2012) Beijing Automotive Works opens taxi plant in springs, 13 November 2012, http://www.engineeringnews.co.za/article/beijing-automotive-works-opens-taxi-plant-in-springs-2012-11-13, Accessed 25 June 2013.

[20] Engineering News (2012) FAW breaks ground on 500 unit-a-year truck plant, 28 February 2012, http://www.engineeringnews.co.za/article/first-production-at-coega-faw-truck-plant-scheduled-for-july-2014-02-14, Accessed 25 June 2014.

[21] Stats SA, P3041.2 - Manufacturing: Production and Sales (various editions).

The merSETA's Auto Chamber comprises the local OEMs. The New Tyre Chamber consists only of the small group of companies manufacturing new tyres for OEMs and aftermarket supply. The Motor Chamber accommodates the remainder of the firms involved in the automotive sector: components manufacturers, tyre re-manufacturers, vehicle retailers and distributors, as well as those companies involved in vehicle servicing.

2.3.3 The plastics sector

The merSETA's plastics manufacturing sector represents the downstream section of the plastics value chain. The sector is largely composed of small firms, as barriers to entry are relatively low.[22] The vast majority of firms are privately owned.[23] Local and imported polymers are converted into a range of intermediate and final products. These products form a critical input into a range of other sectors. More than half (52%) of SA's plastics manufacturing serves the local food and general packaging market. Other market sectors include building and construction, automotive, agriculture, medical, household goods, clothing and footwear, and toys and leisure equipment (Figure 2-2).

The plastics industry uses a range of different conversion processes such as: injection moulding; various forms of extrusion; rotational moulding; thermoforming, blow film extrusion, and injection blow moulding among others. Also included in the plastics sector are composites, thermoplastic fabrication and industrial rubber. As such, this group represents a very diverse sector.[24]

[22] The dti (2010) 2010/11 – 2012/13 Industrial Policy Action Plan, February 2010.

[23] The merSETA (2013) Plastics Chamber Research Project report indicates that 93.5% of the firms that participated in their survey were privately owned.

[24] Plastics Federation of South Africa, http://www.plasticsinfo.co.za/industry-overview.asp, Accessed 14 September 2011.

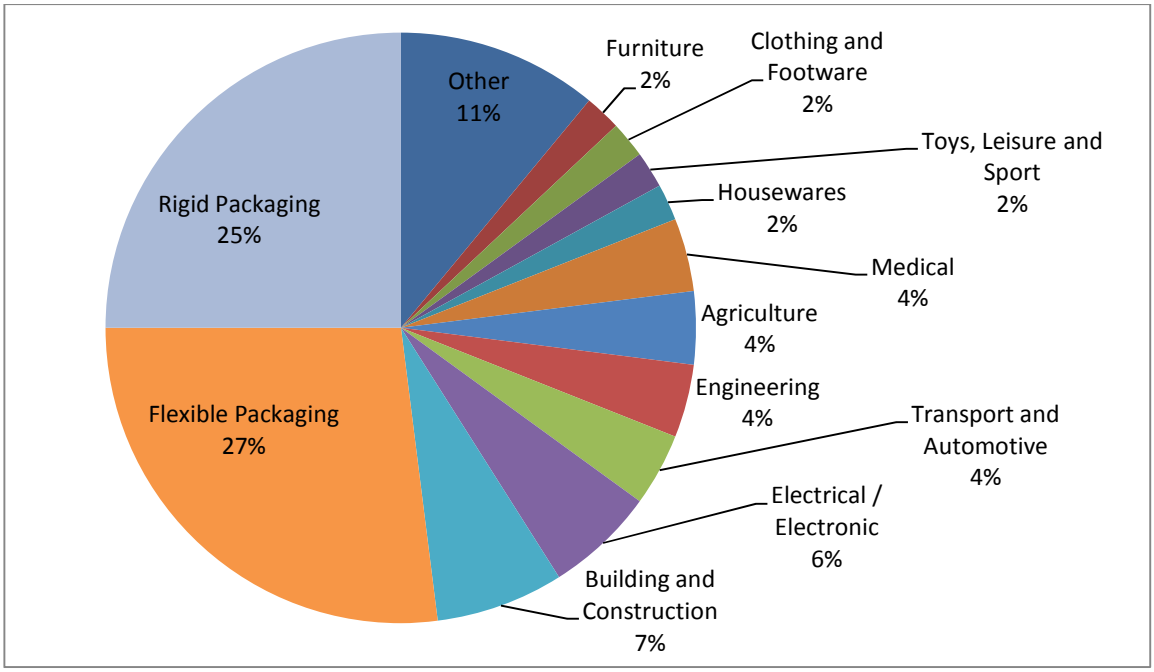


Figure 2-2 Market sectors for the plastics sector based on percentage polymer converted
Source: PlasticsSA (2013) http://www.plasticsinfo.co.za/images/4074.pdf

2.4 ORGANISATIONS IN THE SECTOR

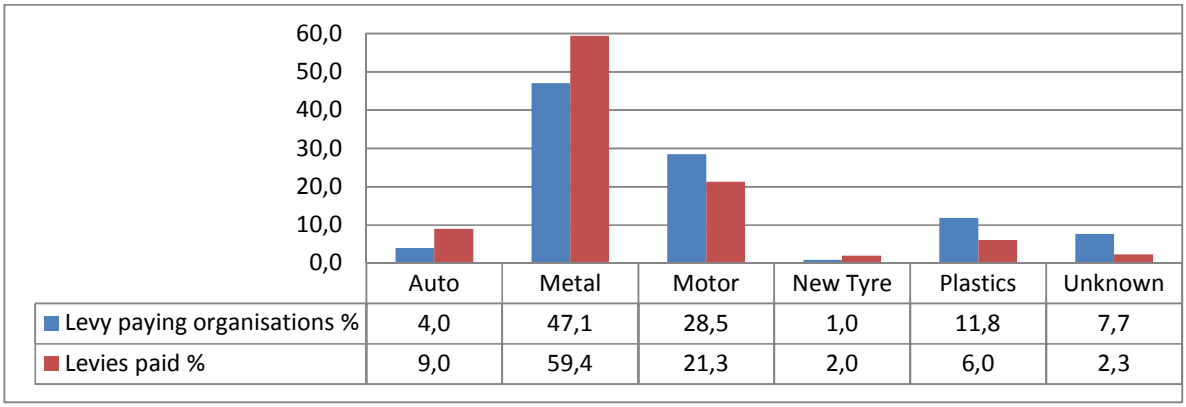
The merSETA has almost 50 000 organisations on its database. However, in the 2013/2014 financial year only 12 849 companies paid skills development levies (SDLs) to the SETA, which is a slight increase of 1.4% since the previous year. This increase is the net effect of merSETA companies amalgamating and closing, and of new companies joining the merSETA. The data shows that while the number of large firms has decreased, there are more small and medium firms submitting data. The other organisations are either small companies that are exempt from the SDL or they are not currently operational.[25]

In terms of the size of levy paying companies in the merSETA sector, 84% are Small and Medium enterprises (SMEs) employing less than 150 people and 14% employ more than 150 people. The percentage of SMEs has increased in the past year (81%) indicative of the economic climate which saw the sectors shedding jobs. This will be discussed in greater detail in the economic analysis.

The distribution of the merSETA's 12 849 levy-paying organisations across its chambers is presented in the figure below. What is clear from the figure is that firms in the Auto, Metals and New Tyre Chambers are generally larger organisations (where contributions to the overall levies received by the merSETA are greater than the contribution

[25] The merSETA recognises the challenges that it faces with respect to the understanding and servicing of the small non-levy-paying companies in its sector. This is an area that will receive continued attention in future.

to the total number of firms), while firms in the motor sector and in the 'unknown' group are generally smaller organisations.

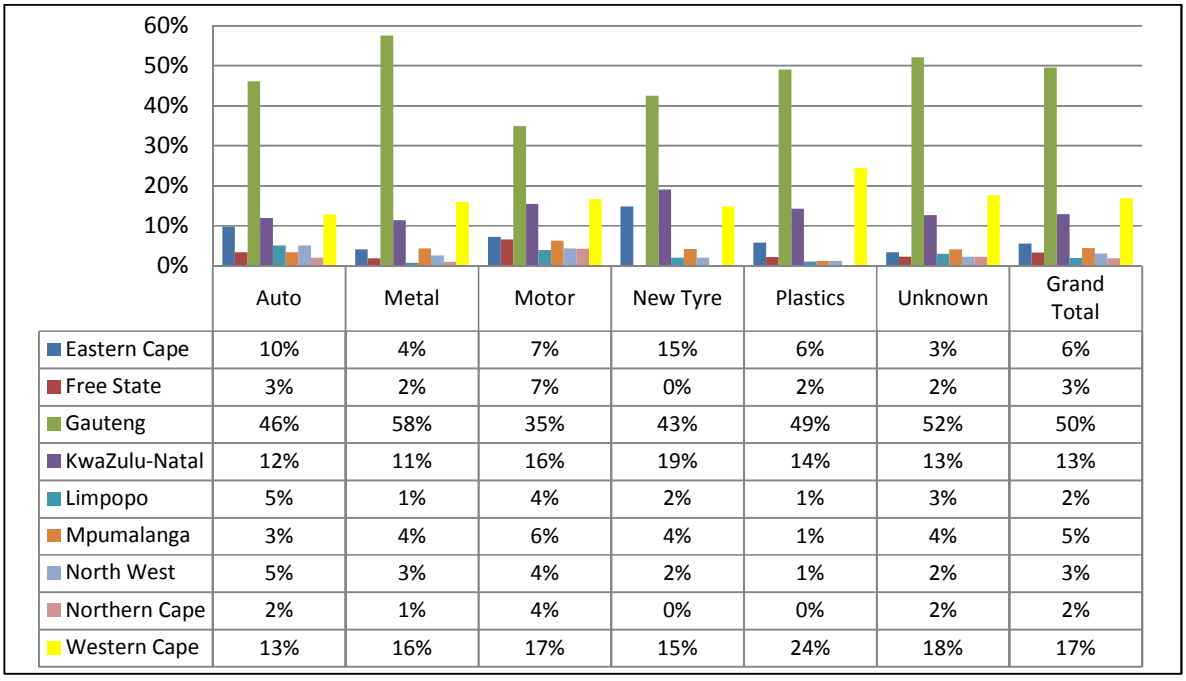


	Auto	Metal	Motor	New Tyre	Plastics	Unknown
Levy paying organisations %	4,0	47,1	28,5	1,0	11,8	7,7
Levies paid %	9,0	59,4	21,3	2,0	6,0	2,3

Figure 2-3 Sectoral distribution of merSETA companies

Source: merSETA data 2014 Levies

In terms of the provincial distribution of the companies within merSETA's five chambers. All of merSETA's chambers show a concentration of companies in Gauteng. Outside of Gauteng, companies in the Metal Chamber are concentrated in the Western Cape and KwaZulu-Natal; companies in the Auto Chamber are concentrated in the Eastern and Western Cape and KwaZulu-Natal; companies in the Motor Chamber are concentrated in the Western Cape and KwaZulu-Natal; companies in the New Tyre Chamber are concentrated in KwaZulu-Natal; and companies in the Plastics Chamber are concentrated in the Western Cape and KwaZulu-Natal. The merSETA sector is thus relatively unevenly distributed across the provinces (Figure 2-4).



	Auto	Metal	Motor	New Tyre	Plastics	Unknown	Grand Total
Eastern Cape	10%	4%	7%	15%	6%	3%	6%
Free State	3%	2%	7%	0%	2%	2%	3%
Gauteng	46%	58%	35%	43%	49%	52%	50%
KwaZulu-Natal	12%	11%	16%	19%	14%	13%	13%
Limpopo	5%	1%	4%	2%	1%	3%	2%
Mpumalanga	3%	4%	6%	4%	1%	4%	5%
North West	5%	3%	4%	2%	1%	2%	3%
Northern Cape	2%	1%	4%	0%	0%	2%	2%
Western Cape	13%	16%	17%	15%	24%	18%	17%

Figure 2-4 Provincial distribution of companies in the merSETA Sectors

Source: merSETA WSP data 2014

2.5 EMPLOYMENT IN THE SECTOR[26]

2.5.1 Total employment

The analysis of WSPs submitted to the merSETA in April 2014 sets total employment in the sector at an estimated 641 690.[27] This figure, which excludes employment in the non-levy-paying companies allocated to the sector[28], is down from a figure of 653 800 as reported in the last SSP update. This reduction accounts for just over 12 00 people. This could be attributed to the fact that while the number of firms paying levies in 2013 has increased slightly, the number of larger firms has decreased.

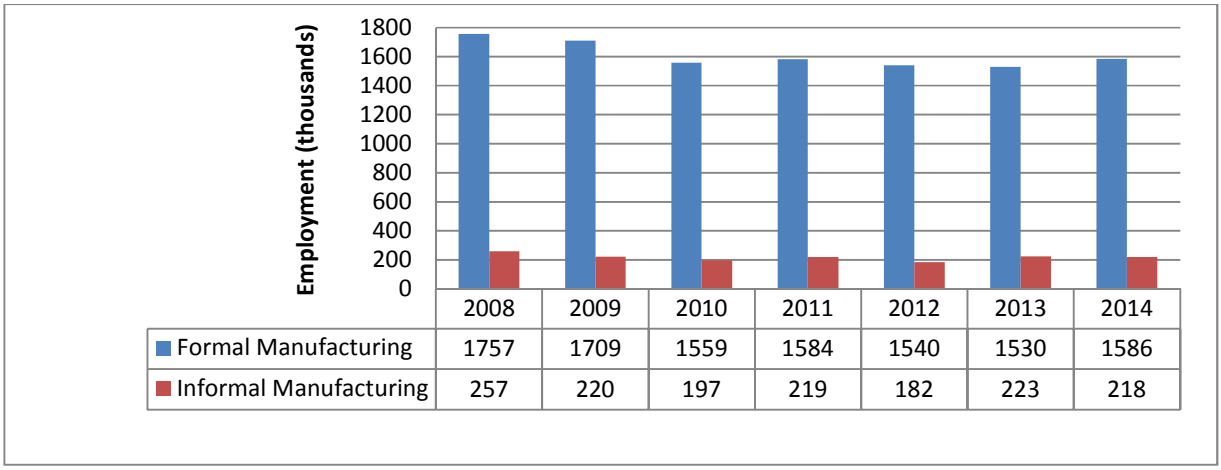
According to the Quarterly Labour Force Survey (QLFS), the national economy employed about 13.116 million people in March 2014. The manufacturing sector provided employment for about 1.804 million or 13.75% of the total employed population.[29] The table below provides context to these figures by showing total manufacturing employment figures in SA by both formal and informal employment in the sector. Since 2008 total manufacturing employment has declined, with the largest decline between 2009 and 2010. Formal sector employment recovered somewhat in 2011, but in confirmation with merSETA figures, dropped again slightly in 2012. Based on the 2014 figures, the merSETA sector constitutes about 36.0% of the total manufacturing employment, and 4.9% of total national employment.

[26] As there is no one complete and definitive source of data that covers only (and completely) the three sectors that fall within the merSETA sector, different sources of data used to determine sector employment yield different results within a generally consistent range. In this section data are taken from the merSETA's Workplace Skills Plans (WSPs), which estimate employment at the higher end of the range.

[27] Data were weighted in order to compensate for those firms that did not submit WSPs. The weights applied are explained in Appendix 1.

[28] At this stage the merSETA doesn't have enough information on the small non-levy-paying companies to estimate employment numbers. A clean-up of the data that are transferred from the DHET to the SETA and focused research are needed before any reliable estimates can be made.

[29] Stats SA (2014) Quarterly Labour Force Survey, Quarter 1, 2014, Table 3.3, P0211.

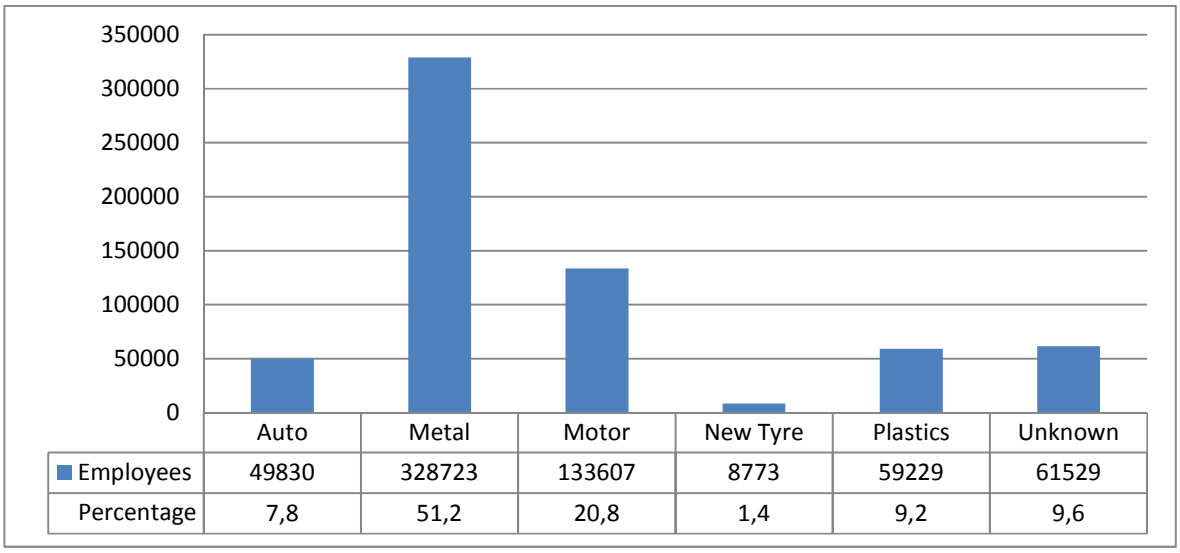


	2008	2009	2010	2011	2012	2013	2014
Formal Manufacturing	1757	1709	1559	1584	1540	1530	1586
Informal Manufacturing	257	220	197	219	182	223	218

Figure 2-5 Manufacturing sector employment: 2008 – 2014

Source: Stats SA, Quarterly Labour Force Survey, Quarter 1 2008, 2009, 2010, 2011, 2012, 2013, 2014

The distribution of total employment by chamber indicates that the largest group of merSETA employees fall within the Metal Chamber, followed by those in the Motor Chamber.



	Auto	Metal	Motor	New Tyre	Plastics	Unknown
Employees	49830	328723	133607	8773	59229	61529
Percentage	7,8	51,2	20,8	1,4	9,2	9,6

Figure 2-6 merSETA employment by chamber[30]

Source: merSETA WSP data 2014

2.5.2 Provincial distribution of employees

The geographical distribution of employees, this is likely to follow the geographical distribution of the sector as a whole, with employment concentrated in Gauteng, but with nodes of higher-level employment in Cape Town, East London, Port Elizabeth and Durban. The rural provinces and rural areas of provinces in which there are urban

[30] It is important to note that these figures are extracted from the merSETA data system that is currently based on levy-paying firms. PlasticsSA has indicated that the number of firms in the plastics sector is considerably larger than the totals indicated here, but that many of the firms are small Source: PlasticsSA, written feedback to the merSETA, 7 March 2012.

concentrations of merSETA employment are likely to have a greater proportion of employment in the motor retail, motor service and repairs, and metal fabrication subsectors than in the other merSETA subsectors.

Province	Employees	Percentage (%)
Gauteng	382 490	59.6
KwaZulu-Natal	95 528	14.9
Western Cape	71 131	11.1
Eastern Cape	40 178	6.3
Mpumalanga	22 257	3.5
North West	10 800	1.7
Free State	9 150	1.4
Limpopo	5 999	0.9
Northern Cape	4 158	0.6
Grand Total	**641 690**	**100.0**

Table 2-2 merSETA Provincial distribution of employees 2014

2.5.3 Educational profile

There is no detailed information available on the skills levels of employees from merSETA collected data. However, the occupational distribution provides a rough proxy of the sector's educational profile. The QLFS Q2 data from STATSSA were also utilised to establish a proxy measure for educational levels of merSETA sector employees.

According to QLFS Q2 data the majority of employees have level 4 (48%) but overall 90% of employees have TVET band qualifications with less than 10% having qualifications higher than TVET level. Women tend to be less represented above NQF 4.

NQF Level	Female	%	Male	%	Total	%
Below level 1	984	0.6%	27144	3.1%	28128	2.7%
1	20039	11.4%	141888	16.4%	161927	15.6%
2	21302	12.2%	106506	12.3%	127808	12.3%
3	25316	14.5%	132249	15.3%	157565	15.2%
4	101622	58.0%	393453	45.5%	495075	47.6%
5	1767	1.0%	7998	0.9%	9765	0.9%
6	487	0.3%	20737	2.4%	21224	2.0%
7	2238	1.3%	16003	1.9%	18241	1.8%
9		0.0%	3120	0.4%	3120	0.3%
Don't know	1352	0.8%	14958	1.7%	16310	1.6%
Total	**175107**	**100%**	**864056**	**100%**	**1039163**	**100%**

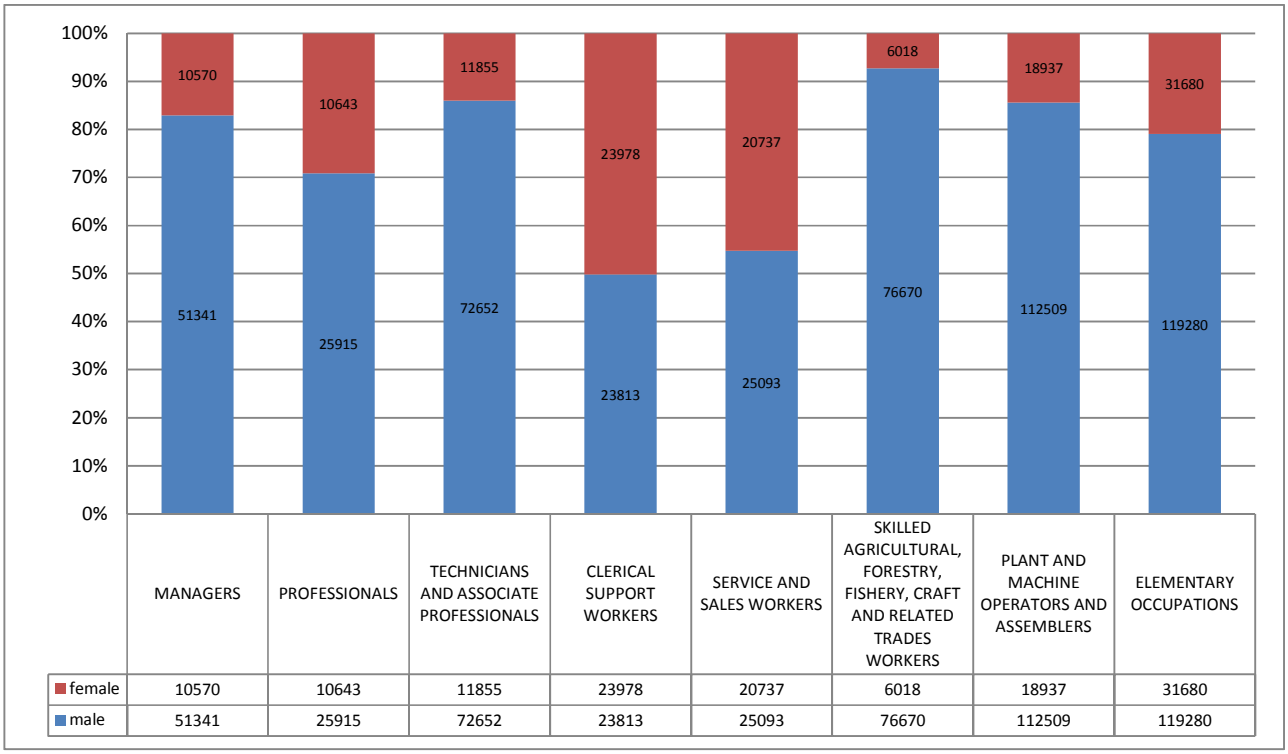
Table 2-3 Educational Levels of Employees in merSETA Sector

Source: STATSSA 2014, QLFS Q2, data based exclusively in merSETA SIC codes

These trends seem to be in keeping with the occupational profile of the sector. Deriving from merSETA data 2014, Managers (9.6% of the total) and professionals (5.7%) are likely to have high levels of formal education. The bulk of technicians and associate professionals (13.2%) and skilled agricultural, forestry, fishery, craft and related trades workers (which include artisans) (12.9%) will have trade-related qualifications. The categories of clerical support workers (7.4%) and service and sales workers (7.1%) are likely to have a range of qualifications, from the low intermediate level through to professional qualifications. Plant and machinery operators and assemblers (20.5%) are likely to have a relatively even split between low intermediate level qualifications, and higher entry-level qualifications. Elementary workers (23.5%) generally have only entry-level qualifications.

2.5.4 Race and gender distribution of employees

Of the total number of people employed by the merSETA sector, about 80% are male and 20% are female (Table 2-3). The group of clerical support workers and service and sales workers are the only two occupational categories in which there is more or less an equal split between men and women. For the other major occupational categories the proportion of women ranges from a low of 7.3% for skilled agricultural, forestry, fishing, craft and related trades workers to a high of 29.1% for professionals.



	MANAGERS	PROFESSIONALS	TECHNICIANS AND ASSOCIATE PROFESSIONALS	CLERICAL SUPPORT WORKERS	SERVICE AND SALES WORKERS	SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	PLANT AND MACHINE OPERATORS AND ASSEMBLERS	ELEMENTARY OCCUPATIONS
female	10570	10643	11855	23978	20737	6018	18937	31680
male	51341	25915	72652	23813	25093	76670	112509	119280

Figure 2-7 Gender distribution of employees in the sector according to occupational group

Source: merSETA WSP 2014 data

Gender	N	%
Female	134 418	20.9
Male	507 273	79.1
Total	**641 690**	**100**

Table 2-4 Gender distribution of total merSETA employees

Source: merSETA WSP data 2014

Regarding race, more than half (57%) of merSETA employees are African and a quarter (25%) are white.

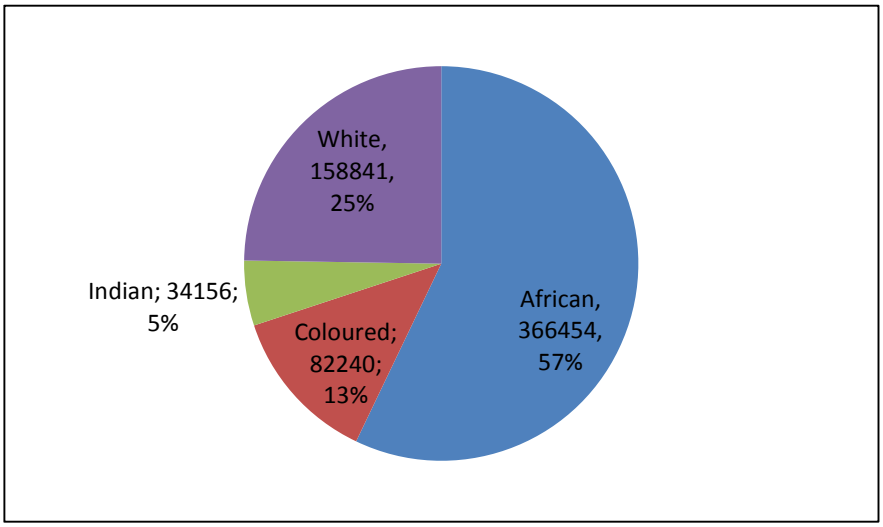
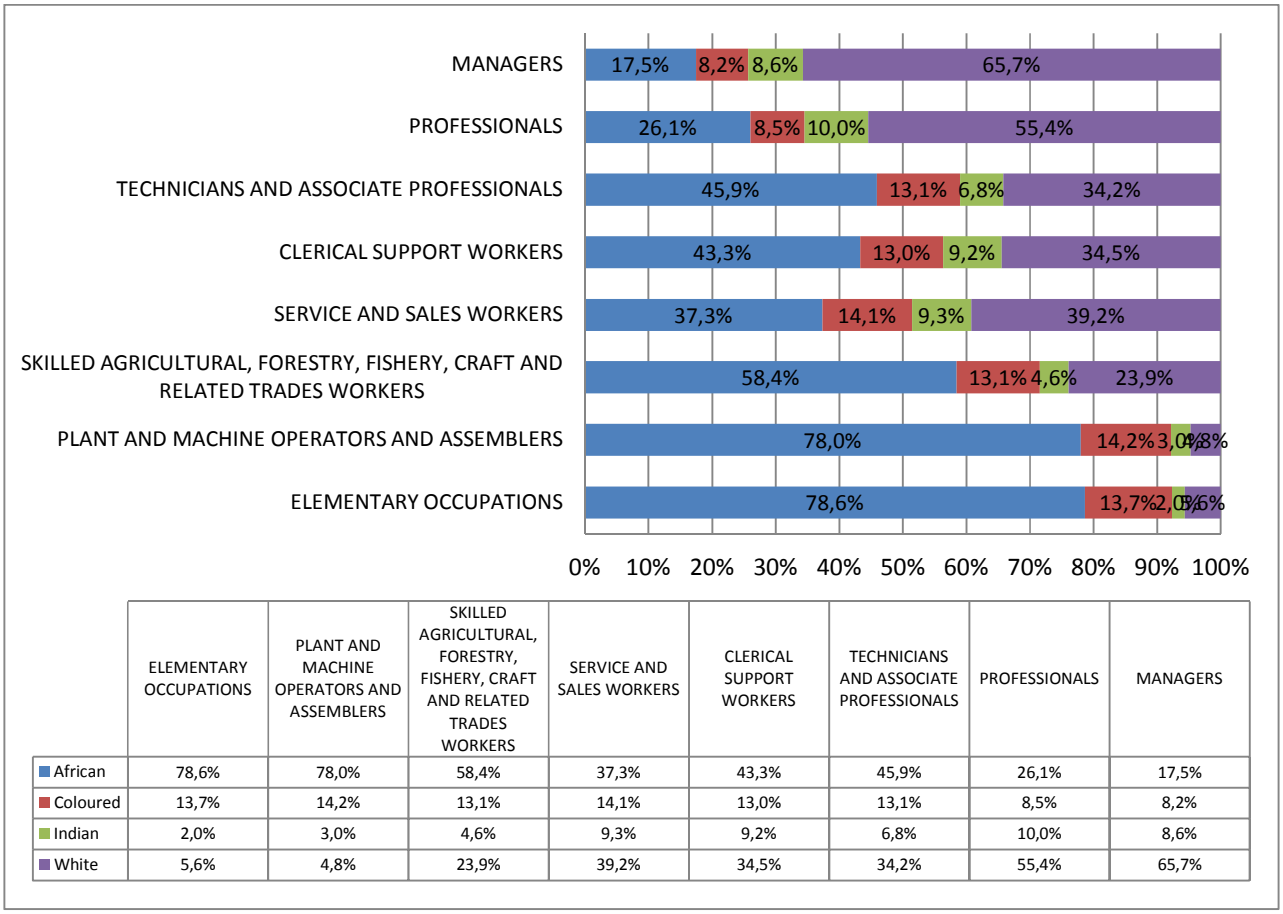


Figure 2-8 Racial distribution of employees in the sector

The occupational categories of elementary occupations and plant and machine and assemblers have the greatest proportion of African employees (78.6% and 70% respectively). For skilled agricultural, forestry, fishery, craft and related trades workers, Africans make up well over half the total employment (58.4%), while whites make up just less than one quarter (23.9%). White employees form the largest racial group in the occupational categories of managers (65.7%), professionals (55.4%), and service and sales workers (39.2%). Africans make up the majority of workers for Technician and associate professionals (45.9%) and clerical support workers (43.3%). It is important that these indicators be tracked for changes over time. As merSETA's data collection systems become more embedded, more detailed monitoring of transformation will become possible (Figure 2-9).

Occupational Categories	African	Coloured	Indian	White	Total
ELEMENTARY OCCUPATIONS	118719	20723	3000	8517	150960
PLANT AND MACHINE OPERATORS AND ASSEMBLERS	102502	18704	3983	6257	131446
SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	48318	10841	3770	19759	82688
SERVICE AND SALES WORKERS	17116	6462	4274	17978	45829
CLERICAL SUPPORT WORKERS	20692	6229	4396	16474	47792
TECHNICIANS AND ASSOCIATE PROFESSIONALS	38768	11110	5713	28916	84507
PROFESSIONALS	9528	3103	3673	20254	36558
MANAGERS	10810	5068	5347	40686	61912
Total	**366454**	**82240**	**34156**	**158841**	**641690**

Table 2-5 Racial distribution of merSETA employees, 2014



	ELEMENTARY OCCUPATIONS	PLANT AND MACHINE OPERATORS AND ASSEMBLERS	SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	SERVICE AND SALES WORKERS	CLERICAL SUPPORT WORKERS	TECHNICIANS AND ASSOCIATE PROFESSIONALS	PROFESSIONALS	MANAGERS
African	78,6%	78,0%	58,4%	37,3%	43,3%	45,9%	26,1%	17,5%
Coloured	13,7%	14,2%	13,1%	14,1%	13,0%	13,1%	8,5%	8,2%
Indian	2,0%	3,0%	4,6%	9,3%	9,2%	6,8%	10,0%	8,6%
White	5,6%	4,8%	23,9%	39,2%	34,5%	34,2%	55,4%	65,7%

Figure 2-9 Racial distribution of employees in the sector according to occupational group

Source: merSETA WSP data 2014

Occupational Category	African		Coloured		Indian		White	
	2013	2014	2013	2014	2013	2014	2013	2014
MANAGERS	15.3	17.5	7.3	8.2	7.9	8.6	69.6	65.7
PROFESSIONALS	23.6	26.1	8.5	8.5	10.1	10.0	57.9	55.4
TECHNICIANS AND ASSOCIATE PROFESSIONALS	34.5	45.9	10.8	13.1	8.1	6.8	46.6	34.2
CLERICAL SUPPORT WORKERS	36.7	43.3	14.7	13.0	10.2	9.2	38.3	34.5
SERVICE AND SALES WORKERS	35.6	37.3	13.3	14.1	11.1	9.3	39.9	39.2
SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	55.1	58.4	12.5	13.1	4.7	4.6	27.7	23.9
PLANT AND MACHINE OPERATORS AND ASSEMBLERS	76.3	78.0	15.4	14.2	3.1	3.0	5.2	4.8
ELEMENTARY OCCUPATIONS	80.2	78.6	10.8	13.7	2.4	2.0	6.6	5.6

Table 2-6 Racial distribution of merSETA employees 2013 - 2014

As merSETA's data collection systems become more embedded, more detailed monitoring of transformation will become possible. For now however there does seem to be some positive movement in terms of racial equity as demonstrated in the table above.

2.5.5 Age distribution of employees

In 2014 half (49.4%) of the merSETA's employees fell into the age category 25 to 45 years, while 41.0% were younger than 35 years and only 9.2% were between 50 and 64 years old. Positively, the group skilled agricultural, forestry, fishery, craft and related trades workers has a relatively large proportion of workers younger than 35 years (44.8%)[31], while the proportion of professionals in the age group 50 to 64 years is only 9.9%.[32] Managers are older than employees in other occupational groups with the majority being older than 45 years (Figure 2-10).

[31] Chamber representatives (in a meeting on 3 July 2013) report that in the metals and plastics sectors the average age of artisans has reduced considerably due to the recent drive to train artisans. In the tyre industry the average age of artisans remains high. Thus this overall profile hides the details within the chambers. While industry reports maintain that the average age of artisans is high (in contrast to this data) it may be that industry is making a distinction between what they perceive to be the older age of 'competent' artisans, rather than the overall age of 'qualified' artisans.

[32] Anecdotal evidence from industry is that the average age of employees in the sector, particularly artisans, is high and that many technically skilled people are due to retire within the next decade. This data do not directly support this industry view.

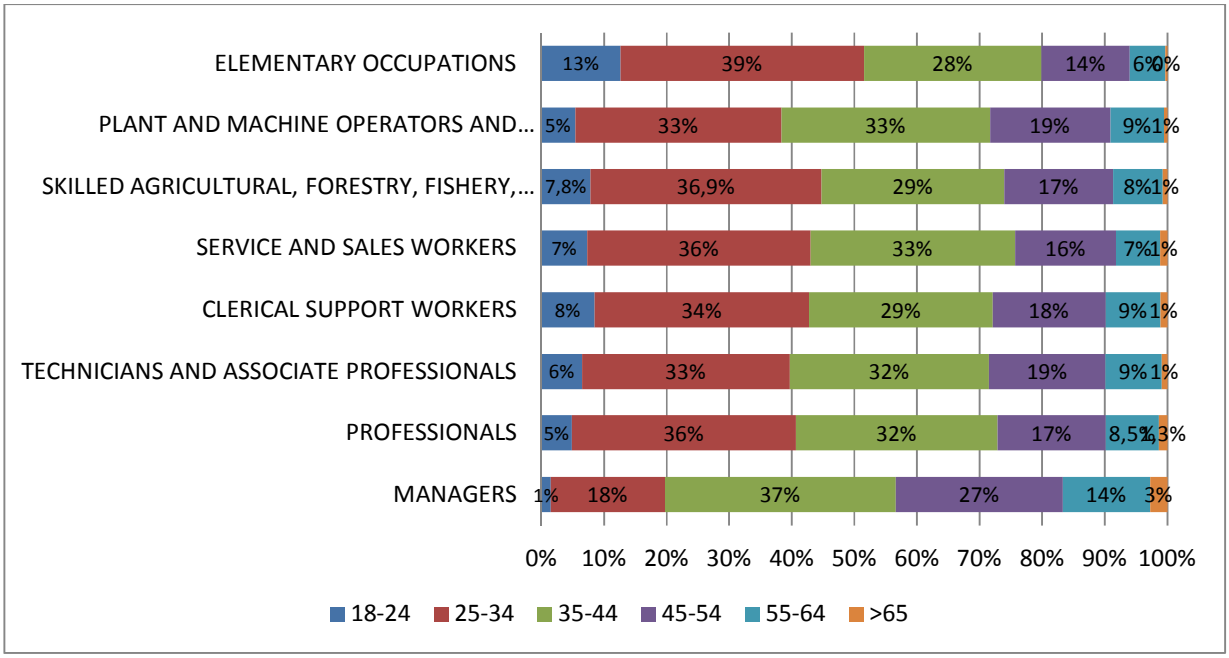


Figure 2-10 Age distribution of merSETA employees by major occupational category

Source: merSETA WSP data 2014

Occupational Category	18-24	25-45	45-64	>64	Total
MANAGERS	922	34132	25161	1696	61912
PROFESSIONALS	1772	24872	9431	482	36558
TECHNICIANS AND ASSOCIATE PROFESSIONALS	5466	54970	23315	756	84507
CLERICAL SUPPORT WORKERS	4053	30408	12817	513	47792
SERVICE AND SALES WORKERS	3366	31326	10619	519	45829
SKILLED AGRICULTURAL, FORESTRY, FISHERY, CRAFT AND RELATED TRADES WORKERS	6484	54667	20947	591	82688
PLANT AND MACHINE OPERATORS AND ASSEMBLERS	7125	87099	36546	676	131446
ELEMENTARY OCCUPATIONS	19089	101574	29817	479	150960
Total	**48277**	**419047**	**168653**	**5713**	**641690**

Table 2-7 Age distribution of merSETA employees by major occupational category, 2014

2.5.6 Disability

merSETA organisations employ approximately 4 875 people with disabilities. This constitutes 0.8% of total employment, a proportion that has only slightly increased since 2011 (0.7%). The chamber with the highest percentage of people with disabilities (1.1% of total employment) is the Auto Chamber (Table 2-2), with this figure having decreased slightly over the past year (from a figure of 1.8%) but overall it seems that people with disabilities have kept their jobs as this segment of employees have not shed as many jobs when taking into consideration the entire workforce.

Chamber	Employment	Employees with disabilities	Employees with disabilities as % of employment
Auto	49830	554	1.1%
Metal	328723	2470	0.8%
Motor	133607	1325	1.0%
New Tyre	8773	66	0.8%
Plastics	59229	355	0.6%
Unknown	61529	105	0.2%
Total	**641690**	**4875**	**0.8%**

Table 2-8 Number of employees with disabilities by chamber, 2014

2.6 CHARACTERISTICS OF THE SECTOR

2.6.1 Global integration of manufacturing value chains

One of the key characteristics of the merSETA sector is the level of global integration of the majority of its subsectors.

Prior to 1994 the local automotive industry was largely domestically owned and focused almost exclusively on the Southern African market. Following the re-integration of SA into the global economy, multi-national motor manufacturers re-invested in domestic assembly plants and existing or new Tier 1 suppliers. The result was that both the structure and the ownership profile of the sector changed entirely within a few years. Operating as part of the global automotive industry means that local plants compete with international sister plants for new model production. At the same time most decisions regarding production volumes, global supply and supplier contracts are made at international head-office level.[33]

Although the SA automotive manufacturing sector contributed only 0.41% of global car production and 1.28% of global commercial vehicle production in 2013, it represents an increase in production of 1.2%.[34] The sector is nevertheless totally integrated into the global automotive-production value chain, with annually increasing levels of both automotive and component exports and imports.

The metal sector, particularly at the level of Stage 2 production, is also highly integrated into the global economy. The primary steel subsector earns the country considerable amounts of foreign exchange through its exports. Ranking about 20th in the world, SA produces in the region of 1% of the world's crude steel and more than half of Africa's crude steel. Total SA crude steel production is in the order of 10 million tonnes per year, while primary steel

[33] Black A (2001) Globalization and restructuring in the South African automotive industry, Journal of International Development, Vol. 13, No. 6, 2001.

[34] International Organisation of Automobile Manufacturers (2013), http://oica.net/category/production-statistics/, Accessed 21 July 2014.

producers manufacture in excess of 8 million tonnes of finished steel products per year of which about 5 million tonnes are consumed domestically.[35] Global integration and a decided export focus, together with the fact that steel production is closely tied to demand for commodities, means that the local metals sector is also highly affected by the global economy.

While the merSETA's plastics manufacturing sector is predominantly focused on the domestic market, around one fifth of plastics firms supply the local automotive industry and through this are also exposed to the tides of the global economy.[36]

The implication of this characteristic of the merSETA sectors is that overall economic performance is highly dependent upon global economic cycles (discussed in more detail in Chapter 3 of this SSP).

Sector	Imports	Exports
Rubber products	7 663	2 218
Plastic products	8 360	3 172
Basic iron & steel	12 464	49 019
Basic non-ferrous metals	6 047	14 560
Machinery & equipment	88 122	31 877
Motor vehicles, parts & accessories	85 886	48 243

Table 2-9 Imports and exports for merSETA subsectors (2013) (Rm 2005 prices)

Source: Quantec, 2014

2.6.2 Subsector trade balances

Linked to the above, Table 2-8 shows the imports and exports (in R million 2005 prices) for the merSETA subsectors in 2013. For the rubber, plastics, machinery and equipment, and motor vehicle, parts and accessories subsectors, imports were greater than exports, with the result that these sectors contributed to the country's overall trade deficit. These subsectors represent the downstream beneficiation activities of raw- or semi-processed materials. Trade deficits here, together with the huge trade surplus evident for the basic iron and steel and basic non-ferrous metals subsectors, is indicative of the structural challenges these subsectors face in respect of local beneficiation and provides evidence of their high levels of global integration.

2.6.3 Labour organisation

The workforce of the merSETA sectors is highly unionised. The National Union of Metalworkers of South Africa (NUMSA) is an active affiliate of the Congress of South African Trade Unions (COSATU), the biggest affiliation of trade unions in SA. NUMSA represents workers from the engineering (steel production), vehicle assembly,

[35] SAISA (2012) South African Iron and Steel Institute website, http://www.saisi.co.za/aboutus.php, Accessed 24 June 2012.

[36] merSETA (2013) Plastics Chamber Research Project.

automotive components manufacturing, new tyre and electronics manufacturing subsectors. Only workers in the merSETA's plastics manufacturing are not represented by NUMSA.

Wage determination in the automotive assembly subsector takes place through a non-statutory centralised bargaining arrangement. The two parties of the National Bargaining Forum (NBF), which was established in 1990, are NUMSA and the Automobile Manufacturers Employers Organisation (AMEO) to which all seven local OEMs belong. Since 1995, agreements have covered a three-year period. The NBF agreement provides for payment for skills acquired (rather than skills used) as well as a Work Security Fund, which provides training in order to re-skill employees who lose their jobs as a result of major retrenchments. Despite the voluntary nature of the arrangement, strike action – which, according to the Labour Relations Act,[37] is deemed a right of unions that follow the correct statutory procedures – generally occurs at each round of negotiations.[38]

For the other merSETA sectors in which NUMSA represents workers, the industrial councils include the Metal and Engineering Industries Bargaining Council (MEIBC), the Tyre Industrial Council, and the Motor Industries Bargaining Council (MIBCO).[39]

Three-year settlement agreements were also reached between labour and MIBCO in 2010[40] and the Steel and Engineering Industries Federation of SA (SEIFSA) in 2011.[41] The new round of wage negotiations between NUMSA, SIEFSA and MEIBC is underway[42], and it is hoped that the duration of the new agreement will also be for three years with an increase ranging from 8% to 10% for different employee levels in year one, two and three. The benefit of three-year wage agreements for industry is the improved ability to plan and a reduction in the loss of productive time associated with wage negotiations. NUMSA has proposed a demand for annual wage negotiations and for a total ban on all labour brokers.[43]

Notably, employment of apprentices in the merSETA sector is governed by the same legislation as permanent employees, including the Basic Conditions of Employment Act, wage determination (as per the Main Agreement for

[37] Labour Relations Act of South Africa (1995) last amended in 2002.

[38] Godfrey S, Theron J, Visser M (2007) The state of collective bargaining in South Africa: An empirical and conceptual study of collective bargaining, Labour and Enterprise Policy Research Group, University of Cape Town.

[39] NUMSA (2011) http://www.numsa.org.za/index.aspx?PageId=10192, Accessed 9 September 2011.

[40] Mail&Guardian Online (2010), Numsa strike against retail motor industry ends, 19 September 2010, http://mg.co.za/article/2010-09-16-numsa-strike-against-retail-motor-industry-ends, Accessed 11 September 2011.

[41] SEIFSA (2011) http://www.seifsa.co.za, Accessed 10 September 2011.

[42] Mail & Guardian (16 July 2014) Seifsa takes Numsa strike negotiations to bargaining council, http://mg.co.za/article/2014-07-16-seifsa-takes-numsa-strike-negotiations-to-bargaining-council, accessed 22 July 2014

[43]Business Day (2013)NUMSA demands 20% wage hike ahead of talks, 24 April 2013, http://www.bdlive.co.za/national/labour/2013/04/24/numsa-demands-20-wage-hike-ahead-of-talks, Accessed25 July 2013.

the Motor Industry) and the Skills Development Act. This situation poses particular challenges for industry in respect of increasing the numbers of apprentices as well as in disciplining non-performing students[44]

Overall, union representatives play an important role in promoting skills development in the sector and in ensuring that skills development takes place in the workplace. In the 2011 process of determining the scarce skills and skills development priorities for the sector there was a general call for organised labour representatives in the sector to receive training to fulfil their roles in skills development.

2.6.4 Employer organisations

Like labour, employers in the merSETA sectors are well organised. Firms in the Metals Chamber are represented by SEIFSA.[45] NAAMSA represents franchise holders marketing vehicles in South Africa,[46] NAACAM is the National Association of Automotive Components and Allied Manufacturers of South Africa,[47] while the Retail Motor Industry (RMI) Organisation represents the retail segment of the automotive sector.[48] The New Tyre Chamber companies are represented by the New Tyre Manufacturers Employers Association and the South African Tyre Manufacturer's Conference (SATMC).[49] Firms in the Plastics Chamber are represented by the Plastics Federation of South Africa (PlasticsSA).[50] These organisations play an important role in the sector in terms of activities such as collective bargaining, data- and information gathering and dissemination, and skills development.

2.6.5 Professional organisation

The various professional groups employed by the merSETA sectors are affiliated to a range of statutory and voluntary professional associations and bodies. Professional bodies (for example, the Engineering Council of South Africa (ECSA)) play an important role in skills development, in promoting the relevance and the quality of professional qualifications, in maintaining professional work standards, and in continuous professional development (CDP).[51]

Since the election of the new ECSA Council in 2009, this professional body has furthermore taken on additional responsibilities outside of its statutory requirements that focus on increasing the relevance of the engineering profession to national development objectives. In line with this, ECSA has provided leadership co-ordination to the

[44] merSETA (2012) Apprenticeships: Review and Opinion on the possibility of lobbying for a change to the current rules surrounding apprenticeships in an effort to create more employment in the sector, Version 3.

[45] SEIFSA (2012) http://www.seifsa.co.za, Accessed 24 June 2012.

[46] NAAMSA (2012) http://www.naamsa.co.za, Accessed 24 June 2012.

[47] NAACAM (2012) http://www.naacam.co.za, Accessed 24 June 2012.

[48] RMI (2012) http://www.rmi.org.za, Accessed 24 June 2012.

[49] NUMSA (2011) http://www.numsa.org.za/index.aspx?PageId=10192, Accessed 10 September 2011.

[50] Plastics SA (2012) http://www.plasticsinfo.co.za, Accessed 24 June 2012.

[51] ESCA (2012) http://www.ecsa.co.za/index.asp?x=ecsa, Accessed 24 June 2012.

'Ingenious' programme that aims to increase the exposure of particularly rural, African and female children to science and engineering; undertaken research to find solutions to increasing the success rates of engineering students at higher education; and entered into a partnership to develop the engineering skills capacity at all levels of government in order to deliver on the SIPs at national and local level and through this to positively impact on national service delivery.[52]

2.6.6 Geographic location

Manufacturing firms in the merSETA sector are clustered into four mainly urban regions, which limits the extent to which the sector is able to make a direct contribution to government's rural development objective. Gauteng (including the Brits area of the North West province) has the largest concentration of merSETA companies. Three of the OEMs, more than half of the automotive components manufacturing firms, and almost 80% of firms in the metals sector are situated in this region.

Other clusters include: the Cape Town region, which has a concentration of precision-engineering firms as well as the nearby Saldanah Steel Mill; the Eastern Cape coastal area, which includes the three OEMs and the automotive component manufacturing firms located in and around Port Elizabeth and East London; and the Durban/Pietermaritzburg region, which has one OEM, as well as a group of automotive components manufacturers.[53] Only a few sizeable manufacturing plants are found outside these geographic clusters.[54]

The distribution of the motor retail and servicing subsector is reflected in the provincial distribution of the national population of vehicles. These statistics suggests that the sector is clustered in Gauteng, with 39.0% of the total live vehicle population on 30 June 2014. The Western Cape and KwaZulu-Natal also have a significant share of the sector, with 16.0% and 13.9% of the total live vehicle population respectively. Within Gauteng, the population distribution across vehicle type is 69.6% light passenger vehicles, 25.8% commercial (including load and heavy passenger), 3.8% motor cycles, and 0.9% 'other' vehicles. [55] Across all provinces, the sector is likely to be concentrated in the urban areas.

The plastics manufacturing sector is also clustered in urban industrial areas (in KwaZulu-Natal and the Western Cape), but most particularly in Gauteng, where more than 50% of the industry is located. This is because producers generally choose to be in close proximity to their customers. In respect of plastics packaging (and plastic bottles in

[52] Dr Oswald Franks, ECSA, telephonic interview, 12 July 2012.

[53] Maree J, Lundall P, Godfrey S (2009) Metals beneficiation, Chapter 5 in (A Kraaked) Sectors and Skills, the Need for Policy Alignment, HSRC Press.

[54] Examples include the Apollo Tyres plant in Ladysmith, KZN (formerly Dunlop) and the Bell Equipment plant (the manufacturer of earth-moving and other capital equipment) in Richards Bay, KZN.

[55] eNaTiS (2012) Live Vehicle Populations as at 30 June 2014 by province, July 2014, http://www.enatis.com/index.php?option=com_content&view=article&id=326:live-vehicle-population-as-at-30-june-2014&catid=71:live-vehicle-population-per-registering-authority&Itemid=19, Accessed 21 July 2014.

particular) the low-value, high-volume, lightweight nature of the product necessitates the minimum transportation possible if the cost to consumer is to be competitive.[56]

Despite the urban concentration of the industry, the merSETA sector's labour is drawn from all provinces and locations, both urban and rural. This factor provides the sector with a channel for influencing rural development.

2.6.7 Casualisation of labour

Temporary staffing is an increasing phenomenon in international labour markets, and SA is demonstrating similar trends. As at June 2014, temporary work accounted for 31.1% of formal sector employment.[57]

Because the demand for the merSETA's sector's products is closely linked to the performance of both the national and international economy, production is cyclical and temporary workers have been a long-standing labour phenomenon within the sector. Agreements with unions have, however, set limits to this type of employment: Within the automotive assembly sector there is an unofficial agreement that contracts with labour brokers, who provide temporary workers, will not exceed 20% of total employment. Also, there was an agreement between NUMSA and RMI set a 35% limit on contract labour in the motor retail sector.[58]

A key challenge for skills development for the sector related to casualisation of labour is that these workers are not generally accommodated in skills planning and they make up a large proportion of the sector's workforce. Furthermore, these workers are considered more vulnerable than other workers and thus need to be considered from the perspective of the sector's support for the principles of a 'developmental state'.

2.6.8 HIV and AIDS

The latest published figures from Stats SA estimated that the overall prevalence of HIV and AIDs infections in SA was approximately 10%, with the prevalence among adults (males and females between the age of 15 and 49 years) being a higher 115.9%. The total number of people in SA living with HIV is approximately 5.3 million.[59] A USAIDS report from 2009 that compares the prevalence of HIV and AIDS across various sectors within a group of African countries suggests that the prevalence of HIV and AIDS within the manufacturing sector in SA is considerably lower than in sectors such as mining and agribusiness, but somewhat higher than in sectors such as retail, utilities, and media.[60] Despite a relatively average prevalence level within manufacturing as compared to the rest of SA's economic sectors, HIV and AIDs adversely affects the sector. Another 2009 study revealed that

[56] Anton Hanekom, Plastics SA, telephonic interview, 4 July 2012.

[57] Adcorp (2014) Adcorp Employment Index, June 2014, http://www.adcorp.co.za/Industry/Pages/Adcorp'sEmploymentIndex.aspx , Accessed 22 July 2014.

[58] Mail&Guardian Online (2010), Numsa strike against retail motor industry ends, 19 September 2010, http://mg.co.za/article/2010-09-16-numsa-strike-against-retail-motor-industry-ends, Accessed 11 September 2011.

[59] Stats SA (2013) Mid-year Population Estimates, 2013, P0302.

[60] USAIDS (2009) Business coalitions a joint response to HIV and AIDS.

manufacturing employers in Gauteng reported increasingly negative impacts of the disease on individual employee productivity and firm-level efficiency and cost-competitiveness. Furthermore, while prevalence increased from unskilled- to skilled worker groups, all skills groups were affected, with negative firm-level consequences. Positively, the firms that participated in the study had had HIV and AIDS programmes in place for more than five years at that stage.[61]

Over the 2010/11 financial year, the merSETA piloted a strategic HIV and AIDS Workplace Management Programme for small- and medium enterprises (SMEs) in the sector. The intervention included training and capacity building among the Client Relationship Officers in the merSETA who are tasked with helping SMEs implement the strategic HIV and AIDS Workplace Management Programme.[62] Through 2011/12 merSETA revised its strategy to include direct support and mentoring, allowing it to disseminate information, support and insight into best-practices more cost-effectively and to a larger number of SMEs. Overall company agreements involve directly reaching more than 5 500 employees in the sector.[63]

2.6.9 Black economic empowerment and employment equity

All of the merSETA's firms are subject to the terms laid out in the Broad-Based Black Economic Empowerment Act, No. 53, 2003 (the B-BBEE Act). The generic BEE Scorecard (as opposed to sector-specific charters with related scorecards) applies the dti's B-BBEE Codes of Good Practice that came into operation in February 2007. Compliance ranges from Level 8 (the lowest level) to Level 1 (the highest level).[64] The majority of large employers within the merSETA sector are on level 4 and 5.

2.6.10 Environmental impact

Although manufacturing in SA and internationally is an important industry and creates a substantial proportion of secure jobs, the sector has an environmental footprint. The most significant aspects of this footprint are: the use of non-renewable resources such as metals in the manufacturing process (and the impact on the environment that mining has); waste emissions from the manufacturing process polluting the water and atmospheric systems; and noise pollution. Furthermore, the SA manufacturing base was built on the historic provision of cheap electricity, generated through the combustion of non-renewable coal obtained from mining local reserves and is, therefore, generally energy intensive. In addition to this, manufactured products have an environmental impact, as many are

[61] Van Zyl G, Lubisi C (2009) HIV/AIDS in the workplace and the impact on firm efficiency and firm competitiveness: The South African manufacturing industry as a case study. SA Journal of Human Resource Management/SA TydskrifvirMenslikehulpbronbestuur, 7(1), Art.#206, 14 pages. DOI: 10.4102/sajhrm.v7i1.206.

[62] merSETA (2011) merSETA Annual Report 2010/11.

[63] merSETA (2012) merSETA Annual Report 2011/12.

[64] BeeNavigator (2011) http://www.bee-scorecard.co.za/bee_information.html, Accessed 26 September 2011.

dependent directly or indirectly on the use of fossil fuels for operation (i.e. petrol or electricity), which also impacts on issues such as climate change.

Increasing international pressure regarding environmental concerns has led the manufacturing industry to take a more proactive role in the development of cleaner manufacturing processes and the design of recyclable products, where the waste from one process becomes the raw material for another in a large cycle similar to the natural food chain. Sustainable development is seen to be the ultimate win-win goal, where the current use of non-renewable resources and the growth of the economy in support of current development objects are not to the detriment of future generations.[65]

Among the merSETA sectors, the plastics industry has made the great strides in using recycled products as major raw material inputs. Plastics SA is also putting a significant amount of effort into promoting the sustainability of the sector and increasing general awareness of recycling.[66]

The global automotive industry is also putting much effort into the development of vehicles that do not use the internal combustion engine. Alternatives include the electric engine, the hybrid engine (making use of both electricity and fossil fuels), fuel cells (using electro-chemical reactions to generate energy), and ethanol engines (using ethanol obtained from renewable plant crops).[67] In South Africa, the sale of hybrid vehicles has been miniscule compared with the international market, where many governments' provide incentives for the sale of more fuel-efficient cars. Never-the-less, sales have been picking up speed and the range of hybrid options available to local consumers is increasing, while affordability of these cars is also improving. The next decade is likely to see a substantial increase in demand for more energy efficient vehicles in SA.[68]

In line with the growing threat of increasing 'eco-protectionism' from advanced industrial countries in the form of tariff and non-tariff measures such as carbon taxes and restrictive standards, IPAP now includes a focus on 'green' and energy-saving industries. In addition to promoting the development of technologies that utilise solar energy, the plan includes provision of appropriate support for the local development of an electric car, as well as the creation of an appropriate legislative and regulatory environment. Such legislation will allow the operation of electric vehicles, relevant testing infrastructure for electronic vehicles, local manufacture for domestic and global markets, initiation of charging infrastructure, and educational campaigns on electric vehicles.[69]

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[65] Young P, Byrne G, Cotterill M. Manufacturing and the environment, The International Journal of Advanced Manufacturing Technology, Volume 13, Number 7,488-493, DOI: 10.1007/BF01624609.

[66] Plastics SA (2012) http://www.plasticsinfo.co.za, Accessed 24 June 2013.

[67] Eco20-20 (2011) http://www.eco20-20.com/Green-Technology-and-Its-Impact-in-the-Auto-Industry.html, Accessed 12 September 2011.

[68] Engineering News (2013) Hybrid market grows as budget consumers turn green, 17 August 2012, http://www.engineeringnews.co.za/article/hybrid-market-grows-as-budget-conscious-consumers-turn-green-2012-08-17, Accessed 24 June 2013.

[69] the dti (2010) Industrial Policy Action Plan 2010/11-2012/13: Economic sector and employment cluster.

2.7 CONCLUSIONS

This chapter has provided an overview of the metal, automotive and plastics sectors from the perspective of the merSETA and has highlighted certain aspects of the sector that are important from the point of view of skills development.

The merSETA sector has in the region of 50 000 firms on its database of which the majority are small non-levy-paying companies. The number of levy-paying companies has dropped and is now sits at just under 13 000. Gauteng has the largest concentration of companies for all of merSETA's five Chambers.

The Metal Chamber is the largest of the merSETA Chambers in respect to both the number of firms and employees. The Plastics Chamber caters for the plastics sector, the smallest of the merSETA industries. The Auto Chamber, Motor Chamber and New Tyre Chamber all contain firms within the larger automotive industry. Of these, the Motor Chamber, which includes both the automotive components manufacturing subsector as well as the motor retail subsector, is the largest, while the New Tyre Chamber that caters only for the small group of new tyre manufacturers is the smallest. Total employment in the levy-paying component of the sector is estimated at 641 690, down by roughly 12 000 from the previous year, according to the Adcorp Employment Index the manufacturing sector lost 15 000 jobs in the month of June 2014.

The educational profile of the merSETA sector can be derived from considering its occupational distribution. In this light, the sector employs roughly 23.5% unskilled (elementary) workers, 20.5% semi-skilled workers (plant and machine operators and assemblers), 27.5% skilled workers (craft and related trades workers, service and sales workers, and clerical support workers), and 28.5% highly skilled workers (technicians and associate professionals, professionals and managers).

The majority of the employees within the metals, automotive and plastics sectors are men (79.1%). The group of clerical support workers is the only occupational category in which there is an even split between men and women. For the other major occupational categories the proportion of women ranges from a low (but increasing) 7.3% for skilled craft and related trades workers to a high (and also increasing) 29.1% for professionals and 14.0% for technicians and associate professionals. This means that the merSETA's initiatives are having some positive effect and that the merSETA must continue to support women in its skills development initiatives.

From a racial perspective, black employees represent the bulk overall, with 57% African, 13% Coloured and 5% Indian. Employment of whites is concentrated in the occupational groups of managers (65.7%) and professionals (55.4%). A focus by the merSETA on supporting black skills development, especially for artisans and professionals, will improve the pipeline of relevant skills needed to change the demographic profile of managers in the sector, although there are some gains in the margins, this continues to be a key consideration in the overall transformation of the sector.

The age distribution of employees in the sector does not support the widespread anecdotal evidence coming from within the sector that the average age of artisans is high and that many are due to retire within the next few years. This overall picture may however be hiding regional and sub-sector challenges in this regard. Therefore, focus by the merSETA on developing high-quality artisan skills among young people and supporting the transfer of experience from those who are nearing retirement remains a priority.

Geographically, the sector is clustered in four main regions: Gauteng (including parts of North West province, which has the most significant concentration of firms and employment); Cape Town and surrounds; the central Eastern Cape coast including Port Elizabeth and East London; and the Durban/Pietermaritzburg region of KwaZulu-Natal. Regardless of domestic location, a key characteristic of firms in almost all of the merSETA's subsectors is their high level of global integration – a factor that impacts at many levels, including the adoption of technology and growth in production volumes and through this on employment levels and skills needs.

Non-contract workers in SA's manufacturing sector, particularly in the metal and automotive sectors are highly unionised. NUMSA has the largest membership and is applying ongoing pressure increase minimum sector wages, to increase worker benefits and to limit and contain the extent of labour broking in the sector. Similarly, employer organisations and professional organisations play key roles in collective bargaining, information gathering and dissemination, and in skills development for the sector.

Finally, HIV and AIDS among employees of the metals, automotive and plastics sectors adversely affect individual productivity and firm-level efficiency and cost-competitiveness. Together these place a cost burden on sectors that are struggling to gain and retain global competitiveness in production. Increasing customer and legislated demands in respect of environmental considerations, sustainable development and the 'green economy' impact not only on the cost of production (with implications for overall competitiveness), but also have implications in terms of skills development.

3 ECONOMIC PERFORMANCE OF THE SECTOR

3.1 INTRODUCTION

This chapter provides an overview of the economic performance of the merSETA sectors and the factors that impact on this performance. Next data on the economic performance of the sector are presented, first for the manufacturing sector as a whole, and then for the group of sectors from the National Accounts data that make up the merSETA sectors cluster. Economic indicators on the performance of the local automotive assembly and new vehicle sales subsectors are also given, as they have traditionally tended to serve as a barometer for the merSETA sectors more generally.

The final sections of this chapter give an overview of the numerous government economic development policies and strategies that are likely to have an impact on the economic performance of the sector into the short- to medium-term future as well as industry's views on these policies and strategies.

Together the dynamics of these inter-related factors influence the economic performance of the merSETA sector and therefore also its growth. Economic growth and company confidence and profitability in turn determine the sector's need for and capacity to be involved in skills development.

3.2 MANUFACTURING ECONOMIC PERFORMANCE

The recent Manufacturing Survey conducted by BER collects and reflects perceptions and expectations of manufacturers from 19 subsectors. Overall within the manufacturing sector business confidence fell sharply in the second quarter of 2014; underlying economic factors are indicative of levels similar to those experienced in the wake of the 2009 recession. There has been a decline in domestic demand as well as export sales. Due to this slowdown, production levels also slowed which in turn contributed to the subdued outlook in terms of employment within the sector. Overall the outlook is remains uncertain but there is optimism with regard to improvements in underlying factors however the labour strikes in the mining, metal and manufacturing sectors and the uncertainty with regard to electricity supply weighs heavily on the sectors performance.[i]

Since 1997 the sectors contribution to GDP has declined from a high of 20% to just below 12% in 2013.

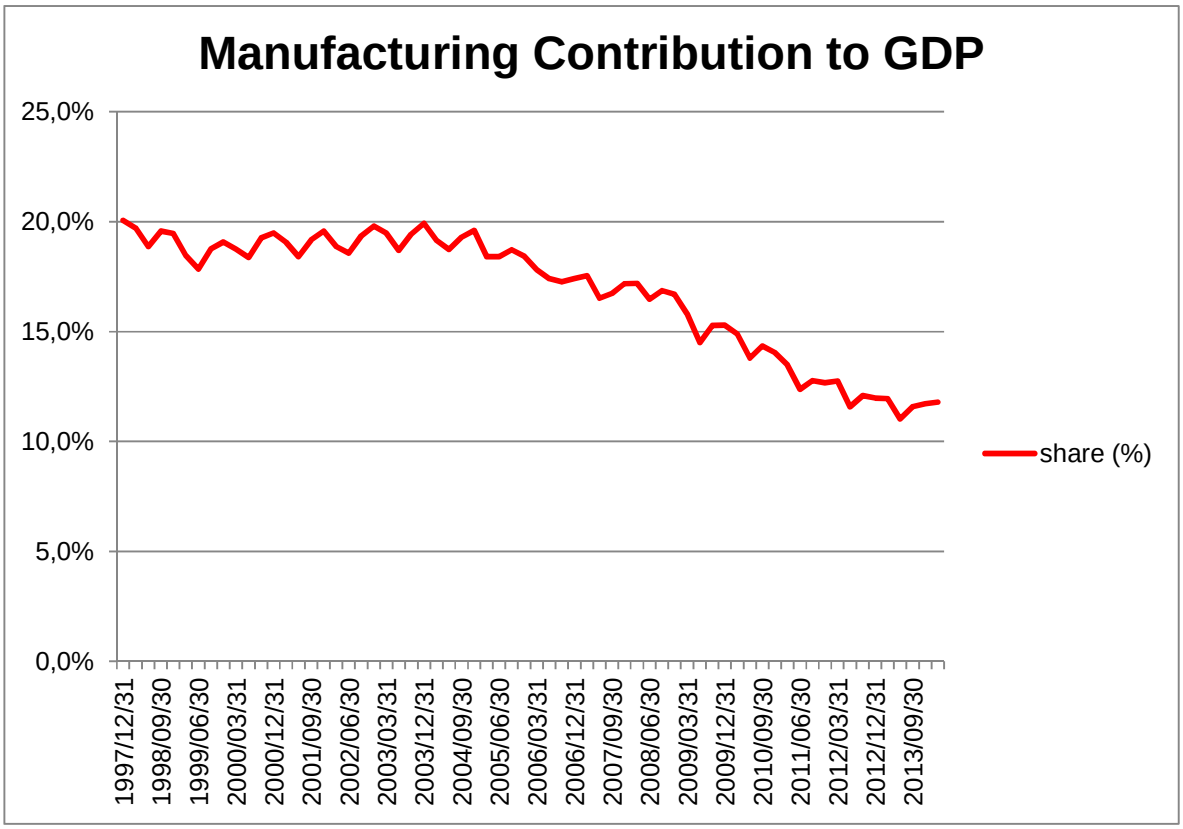

Figure 3-1 Contribution of the manufacturing sector to GDP

Source: Stats SA, 2014

The quarterly changes in gross domestic product (GDP) in the SA economy in the manufacturing sector from 2002 to the first quarter of 2014 are shown below.[70] Since the recession of 2009, the economy has reverted to positive growth, although growth rates have remained at levels much that are lower than they were between 2004 and 2007. In comparison, the manufacturing sector as a whole (of which the merSETA sector forms a significant proportion) experienced contraction of the industry in 2003 and a massive recession between the third quarter of 2008 and the second quarter of 2009. Since then the periodic growth troughs that the sector experiences have been more pronounced than before the recession, with negative growth rates recorded for the third quarter of 2010, the second quarters of 2011 and 2012, and the first quarters of 2013 and 2014. Both manufacturing and the general economy witnessed a steep decline.

[70] Stats SA (2013) P0441, First Quarter 2014, Table 4 using 'Manufacturing' and 'GDP at market prices', http://www.statssa.gov.za/Publications/P0441/P04411stQuarter2014.pdf.

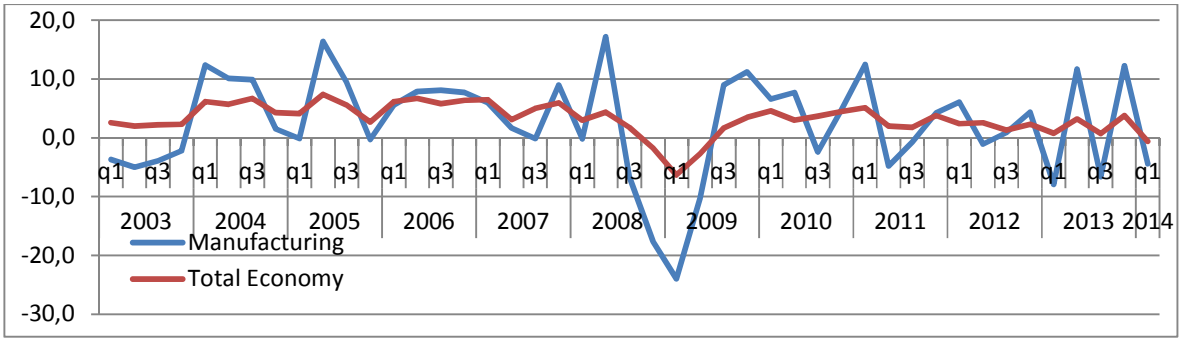

Figure 3-2 Changes in GDP at 2005 constant prices in manufacturing and total economy: 2002-2014 (first quarter)[71]

Source: Stats SA, 2014, P0441

The table below shows the manufacturing sector's contribution to national GDP between 2002 and 2012. The effect of the periods of reduced growth and/or economic contractions in the sector are clearly evident. Between 2002 and 2003, the sector's contribution to GDP dropped from 19.7% to 18.8%. The sector's lowest contribution was at the height of the recession in 2009 (17.2%). Since then the sector's contribution has been stable at the slightly higher level of 17.6% but saw a slight decline in 2013. Over the period under review, the sector's contribution to GDP has dropped by over two percentage points.[72]

2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
19.7	18.8	18.9	19.0	19.1	19.0	18.9	17.2	17.6	17.6	17.6	17.3

Table 3-1 Manufacturing percentage contribution to GDP (excluding Agriculture): 2000-2013

Source: Calculated from Stats SA, First Quarter 2013, P0441, Table 1

3.3 THE MERSETA SECTOR'S ECONOMIC PERFORMANCE

3.3.1 Economic performance of the merSETA sector cluster

This section presents the economic performance of the cluster of sectors from the National Accounts data that most closely matches the merSETA sector. These include: rubber products; plastic products; basic iron and steel; basic non-ferrous metals; machinery and equipment; motor vehicles, parts and accessories.

The recent Manufacturing Survey conducted by BER collects and reflects perceptions and expectations of manufacturers from 19 subsectors. Overall within the manufacturing sector business confidence fell sharply in the second quarter of 2014 a d underlying economic factors are indicative of levels similar to those experiences in the wake of the 2009 recession. There has been a decline in domestic demand as well as export sales. Due to this

[71] Annualised percentage change in seasonally adjusted quarterly value added by industry and gross domestic product at constant 2005 prices.

[72] Stats SA (2014) P0441, First Quarter 2013, Table 1 using 'Manufacturing' and 'Total value added at basic prices excluding agriculture', http://www.statssa.gov.za/Publications/P0441/P04411stQuarter2014.pdf.

slowdown, production levels also slowed which in turn contributed to the subdued outlook in terms of employment within the sector. Overall the outlook is remains uncertain but there is optimism with regard to improvements in underlying factors however the labour strikes in the mining, metal and manufacturing sectors and the uncertainty with regard to electricity supply weighs heavily on the sectors performance.[73]

The table shows the growth in real gross value added (GVA) of the sectors that make up the merSETA sectors cluster, as extracted from the National Accounts data. The sector with the largest output is motor vehicles, parts and accessories and has grown substantially since 1994. The contractions of the sector over 2002/03 and 2008/09 are, however, distinctly evident. The impact of the most recent recession is most evident for the basic iron and steel subsector and the basic non-ferrous metals subsector – with substantial declines in GVA between the peaks in 2008 and the dip in 2009. Furthermore, while the basic iron and steel sector has shown some recovery (to roughly 2005 levels) since the worst of the recession, recovery in the basic non-ferrous metals sector has been very limited. The plastic products sector was least affected by the 2008/9 recession, however has seen a slight declining trend in GVA since 2007, before which the sector experienced slow but relatively sustained growth. The rubber products sector is the smallest in the merSETA sector's cluster and has been slowly contracting since 2002.

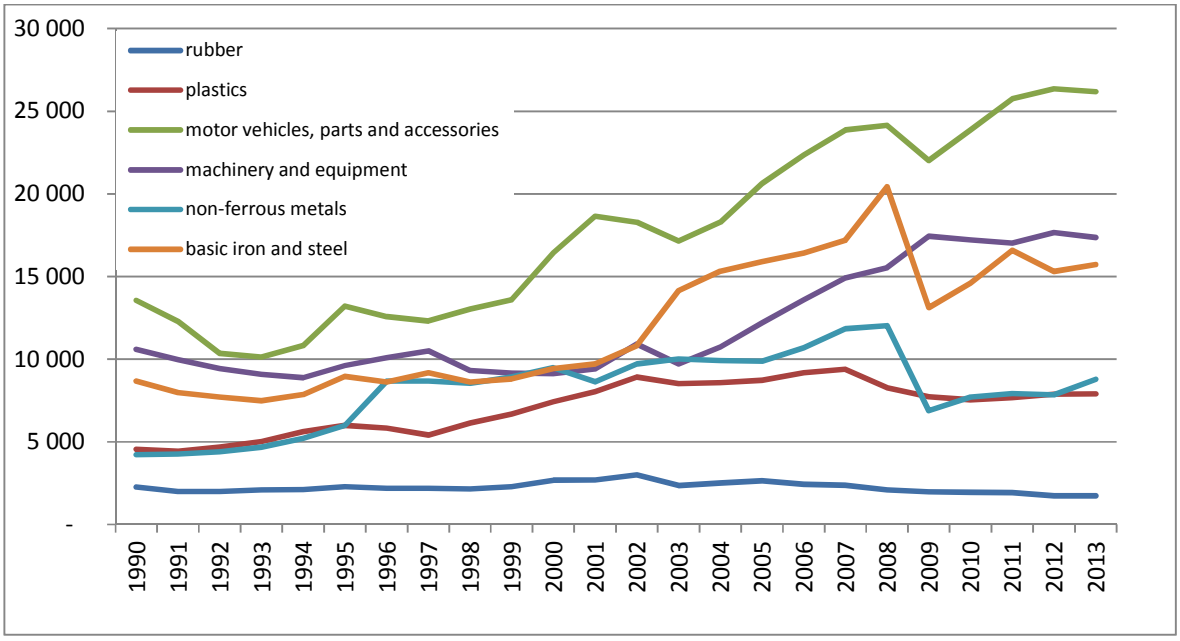

Figure 3-3 Real GVA of the merSETA sector's cluster: 1970-2013 (2005 constant prices)

Source: Quantec, 2014

[73] BER Manufacturing Survey: Quarterly Analysis of manufacturing activity, Second Quarter 2014, vol. 29 no. 2

3.3.2 Economic performance of the automotive sector

In addition to the high-level National Accounts data, economic performance indicators are available from NAAMSA for the new vehicle production and sales subsectors.

The table below shows the capacity utilisation of SA vehicle manufacturers between 2006 and the first quarter of 2014. For the local manufacture of all vehicle types, capacity utilisation dropped to an all-time low in 2009 with 2013 figures also showing a subdued situation, although the first quarter of 2014 does indicate recovery.[74]

Vehicle Type	2006	2007	2008	2009	2010	2011	2012	2013	2014 Q1
Passenger Cars	80.1	67.7	68.3	59.4	77.1	81.6	86.5	68.0	65.0
Light Commercials	87.8	82.7	73.9	56.5	68.4	73.5	87.8	75.3	87.1
Medium Commercials	97.9	91.7	89.9	64.6	77.2	88.4	84.3	59.8	77.6
Heavy Commercials	95.1	95.3	87.6	66.1	77.5	89.9	64.0	69.3	79.3

Table 3-2 Percentage capacity utilisation at SA vehicle manufacturers: 2004-2014 Q1

Source: NAAMSA, 2014

Major highlights with respect to exports indicate that for the first time the Industry exceeded the R100 billion export level. Right hand as well as left hand drive vehicles and automotive components were exported to 152 countries in 2013. The Industry's top markets in value terms were Germany with R19.1 billion followed by the USA with R18.7 billion. The automotive industry account for about 30% of South Africa's manufacturing output.
Although South Africa produced 72% of Africa's vehicle production in 2013, the Industry remains relatively small in global context and was ranked 24th in respect of global vehicle manufacturing with a global market share of 0.63%.
The outlook for domestic sales however were affected by subdued economic growth, exchange rate induced above inflation new vehicle price increases and further upward pressure on interest rates.
Consumer sentiment remains under pressure due to high levels of indebtedness, escalating energy and transport costs and in Gauteng, e-tolling. These factors would influence consumer demand, principally in the case of the new car market. Domestic trading conditions were anticipated to remain difficult with pressure on margins, particularly in the new car and light commercial vehicle sectors. As a result of the challenging macro-economic environment, NAAMSA now anticipated that the domestic market in 2014 was likely to register a decline, in aggregate terms, of around 3.5%.

[74] NAAMSA (2014) Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 1st Quarter 2014.

3.4 FACTORS THAT INFLUENCE THE ECONOMIC PERFORMANCE OF THE SECTOR

A range of factors interact to influence the economic performance of the South African metals, automotive and plastics sectors. These include: economic cycles, commodity markets and commodity prices; the availability of credit; the exchange rate and currency volatility; increasing customer demands; global advances in technology; administered and logistics costs; raw material input costs and availability; labour productivity and skills availability; the local political and social context; fair and unfair competition; government expenditure and infrastructure development; and environmental considerations.

While these are discussed separately in the sections below it is important to remember that in reality these issues are all inter-related and that the extremely negative consequence of the recent recession cannot be divorced from the range of other challenges that the manufacturing sector as a whole has faced since 2002.

Critically economic performance must be seen as the context for skills demand by, and skills development for, the SA automotive, metals and plastics industries, and therefore as the framework within which the merSETA operates.

3.4.1 Economic cycles, commodity markets and commodity prices

The demand for metal and manufactured products is highly sensitive to fluctuations in local and international economic and market conditions. The global and local[75] economic crisis of 2008/9 (and the negative impact that this had on world commodity markets and prices) had an overwhelmingly negative effect on the merSETA's sectors. Contraction in the manufacturing and mining sectors due to falling demand for metal and manufactured products from consumers, as well as from the building and construction sector, led the local economy into recession.[76]

Recovery of the SA economy since the global and local recessions has been slow. In July 2010, Gill Marcus, Governor of the South African Reserve Bank referred to national growth as "fragile and hesitant".[77] Brad Gillis, CEO at BankservAfrica, said in May 2012 that growth was happening at a "pedestrian pace".[78] Reports by the World Bank and the International Monetary Fund are calling the country's economic recovery 'timid' and 'muted' so much so that SA growth estimates by the World Bank have been revised downward, trends in 2014 are also subdued. Both internal and external factors are responsible for this. Labour unrest particularly in the mining sector has had a negative impact on national output and on overall business confidence, adversely affecting both investment and hiring decisions. Delays in the addition of large-scale new electricity generation are also likely to constrain catch up

[75] After two successive quarters of economic contraction in the last quarter of 2008 and the first quarter of 2009, SA entered its first recession in 18 years. South African Reserve Bank (2009).

[76] merSETA (2010) The impact of the 2008/9 global economic crisis on merSETA firms: A focus on employment and skills, EE Research Focus Pty (Ltd).

[77] Mail&Guardian Online (2010) SA's economic recover 'fragile' says Marcus, 7 July 2010, http://mg.co.za/article/2010-07-07-sas-economic-recovery-fragile-says-marcus, Accessed 12 September 2011.

[78] Times Live (2012) SA economy recovering – slowly, 14 May 2012, http://www.timeslive.co.za/local/2012/05/14/sa-economy-recovering---slowly, Accessed 12 July 2012.

growth. External growth is expected to be constrained by continued weak demand from, and the risk of a credit freeze on, certain countries the Euro zone, as this remains South Africa's major export market. Furthermore there is the negative impact of the possibility of a disorderly unwinding of China's unusually high foreign investment rate.[79]

3.4.2 Global events

A recent trend in the global automotive industry is that multinational OEM parent companies are trying to reduce the distances between themselves and their suppliers, with many European OEMs failing to renew contracts with existing suppliers in favour of establishing contacts with suppliers based in Europe or on the European periphery. The reasons for this are twofold. Firstly, with high levels of pressure from European governments and labour unions to maintain employment levels at European factories despite drops in demand as a result of the recession and current sovereign debt crisis, OEMs are being forced to take business from further afield and allocate it to more locally based assemblers and suppliers. Secondly, recent global environmental events, such as the Japanese Tsunami in March 2011 and the extensive floods in Thailand in January and February 2012 have made assemblers more acutely aware of the risks involved in long automotive supply chains. This represents a threat for the SA automotive industry, as SA is geographically far from all the multinational OEM parent companies in Europe, the USA and the East and thus also equally far from all these major markets.[80, 81] Confirming these postulations is the most recent collapse of the Australian motor industry which saw the announcement that Ford, GM Holden and Toyota will be closed down by 2017. This scenario holds important lessons for the African motor industry relating to competitiveness, input costs, strategic positioning and diversification[82].

3.4.3 Availability of credit

The National Credit Act (NCA) of South Africa (Act No 34 of 2005) came into effect in June 2007. The Act considerably tightened the criteria for both companies and individuals to qualify for borrowing money. Since the Act came into effect, firms across the manufacturing sector have had increased difficulty in accessing credit.

The immediate impact of the Act on the automotive industry, which came at a time that the sector was gearing up for growth, was a dramatic reduction in new vehicle demand, as fewer people qualified for loans. This compounded the impact of the recent recession on the sector.[83] Subsequently, through increasing the repayment period from 48 to 72 months, the automotive sector has again managed to assist the majority of potential customers to access credit in order to buy cars. There is, however, some concern at industry level that while this has eased the problem

[79] Business Day (2013) MF slashes South African 2014 growth forecasts, 16 April 2013, http://www.bdlive.co.za/economy/2013/04/16/imf-slashes-south-african-2014-growth-forecast, Accessed 11 June 2013.

[80] Roger Pitot (2012) NAACAM, telephonic interview, 3 July 2012.

[81] NAAMSA (2012) Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 1st Quarter 2012.

[82] SA can learn from Autralia's motor industry implosion: Achieve magazine, June 2014.

[83] merSETA (2010) The impact of the 2008/9 global and local economic crisis on merSETA firms: A focus on employment and skills.

in the short term, there will be negative consequences for the sector in the longer term, as large sums of money that could have been spent by consumers on products will now be paid to banks in the form of interest on loans.[84]

The NCA also dampened demand for new houses. As the building and construction sector is a major downstream consumer of fabricated metal and plastics products, demand in these sectors has been dampened as a direct result. Industry expressed concern in 2010 that until the criteria are revised – especially in relation to home financing – local demand for new houses will remain suppressed, with a negative impact on the upstream merSETA sectors despite a more general economic recovery.[85] Since then revisions that have been proposed that involve tightening the loopholes in the act that have encouraged banks to increase the levels of more profitable unsecured lending over asset-backed finance.[86] And while amendments are also in the pipeline to streamline the process of debt review and counselling, it is unlikely to the ease of availability of financing for new houses over the short-to medium-term future.[87]

3.4.4 The exchange rate and currency volatility

Volatility of the SA Rand against major global currencies makes planning for profitable local automotive and components production very difficult. This is because of the international nature of automotive supplier and customer networks, long planning cycles and the establishment of supplier relationships and contracts during the planning phase of each new vehicle model (often years prior to the launch). The annual cost-down agreements that are built into such contracts add to the difficulty. Rand weakness promotes the local manufacturing sector by increasing the cost of imported components and lowering the prices of SA products on the world market. Additionally, Rand weakness acts as a disincentive for the sale of imported goods.[88]

Currency volatility at the start of the current economic crisis and relatively sustained Rand strength between 2009 and September 2011 meant that the exchange rate hindered rather than assisted economic recovery within the merSETA's manufacturing sectors. Conversely, however, Rand strength served to contain the price increases to consumers of new cars over this period.[89]In May 2011 the Rand recorded a high value of R6.59 against the US

[84] Dr. Dana de Villiers, MISA, telephonic interview, 2 July 2012.

[85] merSETA (2010) The impact of the 2008/9 global and local economic crisis on merSETA firms: A focus on employment and skills.

[86] BizCommunity.com (2013) Changes in National Credit Act can affect property owners, 20 August 2012, http://www.bizcommunity.com/Article/196/368/80235.html, Accessed 13 June 2013.

[87] Business Day (2013) Changes to National Credit Act in pipeline, 4 February 2013, http://www.bdlive.co.za/business/retail/2013/02/04/changes-to-national-credit-act-in-pipeline, Accessed 13 June 2013.

[88] merSETA (2010) The impact of the 2008/9 global and local economic crisis on merSETA firms: A focus on employment and skills.

[89] Business Report (2011) Car price increases slow down as Rand strength continues, 12 April 2011, http://www.iol.co.za/business/business-news/car-price-increases-slow-down-as-rand-strength-continues-1.1055802 Accessed 13 September 2011.

dollar. Since them there has been a sustained weakening of the Rand with a value of R10.71 recorded on 07 June 2014.[90]

3.4.5 Increasing customer demands

Demands from increasingly discerning customers are a source of extreme pressure on the global automotive industry. Customer demands are increasingly centred on: fuel efficiency; vehicle design for the changing urban landscape; Mobility-as-a-Service (MaaS); and connected car technologies.[91] Furthermore, within an overall demand for reducing relative prices, customers are also demanding increasingly differentiated products and better quality and after-sales support service. These demands have resulted in moves within the global automotive industry to consolidate operations, reduce fixed costs, improve efficiencies and improve gross profit margins by so doing. As sister plants within one company are being forced to compete against each other for new models, the need among SA assemblers for globally competitive skills, labour productivity, technology, and components suppliers becomes increasingly critical.[92] Finally, the demand for diversity of automotive models and derivatives also has a negative impact on the economic efficiencies in the retail motor industry, as each model requires its own spares and skills in servicing and product maintenance.[93]

3.4.6 Global advances in technology

Global competitiveness among SA manufacturers is hindered by their inability to keep up with global advances in technology such as computer-aided design (CAD), computer-aided modelling (CAM), and Computer Numerical Control (CNC). The failure to keep up with the last of these has impacted dramatically on the productivity and quality of sheet metal fabricators. Combined with policies that seek to promote the use of local content, this has resulted in local OEMs persuading international first-tier suppliers to set up Greenfields operations in SA. Industry has expressed concerns that while it is easy to import technology in this way, SA needs to have the skills base to maintain it if it is to be used productively and efficiently.[94] An example of the impact of changing technology on certain trades and their qualifications is in respect of welding where, in order to maintain its relevance, training has to take into account the latest welding equipment and processes including: hybrid laser/plasma arc welding; remote laser welding; solid state welding; stored energy resistance welding; and cold spray.[95]

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[90] X-rates.com (2013) http://www.x-rates.com/graph/?from=USD&to=ZAR, Accessed 07 July 2014.

[91] KPMG (2013) A view on global trends and consumer demand, 1 May 2013, http://www.kpmg.com/global/en/issuesandinsights/articlespublications/global-automotive-executive-survey/pages/global-trends-consumer-demand.aspx, Accessed 14 June 2013.

[92] As mentioned earlier, the negative impact on productivity and profitability caused by the protracted labour strikes in the auto sector in 2013 has resulted in the SA BMW plant in Rosslyn being dropped from the list for consideration of the new model BMW contract.

[93] merSETA (2010) The impact of the 2008/9 global and local economic crisis on merSETA firms: A focus on employment and skills.

[94] merSETA (2010) The impact of the 2008/9 global and local economic crisis on merSETA firms: A focus on employment and skills.

[95] merSETA (2013) Motor Research Project: Employment and Educational and Skills Audit of the merSETA Motor Chamber.

Furthermore, the use of old technology among the predominantly domestic-market-focused plastics manufacturing sector and the constraint that this places on the sector's ability to innovate is one of the reasons why the sector is facing increased competition from imports and struggling to break into export markets.[96]

3.4.7 Administered, logistics and compliance costs

"Administered costs" refers to the prices that firms pay for non-raw material inputs and services over which they have no bargaining power. Included are items such as port tariffs, electricity, water and municipal rates. While poor service and price increases in all of these areas negatively impact the economic performance of the sector,[97] of most concern is the uncertain electricity supply that prevailed during the last period of rapid growth (2007/8) and the considerable increases in electricity prices since then.[98] Eskom's electricity price increases are considered to have contributed to firm closures and job losses in the automotive components subsector over the past few years. Many South African labour unions are of the opinion that if Eskom's 16% average annual tariff adjustment between 2013/14 and 2017/18 is implemented additional job losses will result in the manufacturing sector.[99] Furthermore, as technology ages and new investments in capital equipment are required from multinational owners, there are fears that decisions will be made to invest in plants in countries with a more stable and a less expensive power supply than SA's. Positively, the Transnet National Ports Authority has committed to changing its pricing model in favour of the export of manufactured goods by lowering tariffs on tradable exports by 40% from 1 April 2013.[100]

"Logistics costs" refers to those costs arising from the movement of input and output products between suppliers and customers. Unprecedented rises in the oil price through most of 2008 added substantially to firms' transport costs, while the lower volumes transported since then have to a large degree cancelled any benefits from the subsequent drop in the oil price.[101, 102] Now the high and rising fuel prices are not only adding substantially to firms' logistics costs, but uncertainty regarding the price of fuel into the future is revising the traditional wisdom regarding trade-off decisions that favour minimal inventories to optimised transportation.[103] Additionally, there is a cost to firms associated with having to use bad roads to transport freight. In this light, the recent road

[96] Anton Hanekom, PlasticsSA, telephonic interview, 4 July 2012.

[97] The CSIR's 7th Annual State of Logisitics Survey for South Africa 2010 found that Durban habour was not only the most expensive of the 12 habours they used in the benchmarking exercise, but also the worst in respect of productivity.

[98] NAAMSA (2012), Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 1st Quarter 2012, www.naamsa.co.za, Accessed 12 July 2012.

[99] COSATU (2013) Eskom's proposed price hikes to hit manufacturing and commercial sectors hard, 28 January 2013, http://www.cosatu.org.za/docs/cosatu2day/2013/pr0128a.html, Accessed 14 June 2013.

[100] dti (2013) Industrial Policy Action Plan 2013/14-2015/16: Economic sector and employment cluster, 2013.

[101] Powels D (2009) The South African Automotive Industry: A reflection of the first year of the economic crisis, 7 October 2009, http://www.aidc.co.za/index.php?ct=1&pid=2171, Accessed 13 November 2009.

[102] Jennings S (2009) Panel discussions: Vision 2020 is it a fantasy or a reality, AIDC Automotive Industry Conference 2009, 7 October 2009, http://www.aidc.co.za/index.php?ct=1&pid=2171, Accessed 13 November 2009.

[103] CSIR (2012) 8th Annual State of Logistics Survey for South Africa 2011: Gearing up for change, http://www.csir.co.za/sol/docs/8th%20SoL%202011_23May2012.pdf, Accessed 14 June 2013.

infrastructure upgrading project in the Gauteng has been necessary and welcome. On the downside, the process was expensive and the cost-recovery process (in the form of highly controversial and not yet implemented user tolls)[104] will undoubtedly impact on the cost of logistics for the large proportion of the merSETA sector based in this region. Furthermore, it is anticipated that toll-avoidance behaviour will result in freight vehicles being diverted to alternative roads, aggravating congestion and road damage on those routes.[105]

"Compliance costs" refers to costs associated with compliance with the different forms of legislation and regulations – for example, BBB-EE, skills development, basic conditions of employment, health and safety, waste management and other environmental legislation. Although these forms of legislation and regulations have certain positive implications for the economy and for society at large, they also have cost aspects that generally add to the administered and logistics costs cited above and increase the total cost of doing business in SA.

3.4.8 Raw material input costs and availability

An ongoing problem for SA manufacturing firms is the local pricing of raw material from monopolistic upstream suppliers. For the CETEMF and automotive industries competitive disadvantage results from the local pricing of steel, which is set by ArcelorMittal at the "world price". This is considered to be the average price of the "basket" of steel from producing countries plus the costs of importation. This pricing structure not only undermines local producers but it also acts as a disincentive to foreign investment. A dti survey found that 21,8% of manufacturers would raise employment by 10% for a sustained 10% fall in the steel price, while 45% indicated that they would lift employment by 10% should the steel prices be 20% lower.[106] In line with this the SA government is demanding a more competitive 'developmental' steel price for the local industry.

The legal dispute between ArcelorMittal and Kumba Iron Ore regarding Kumba's suspension of the 2001 agreement (to supply ArcelorMittal SA with an annual 6.25m tons of iron ore at cost plus 3%) ended in March 2013 with the Supreme Court of Appeal confirming a North Gauteng High Court ruling of December 2011 that Kumba subsidiary Sishen Iron Ore Mining Company had applied for, and was granted, a 100% new-order mining right that allowed it to suspended its 2001 agreement with ArcelorMittal.[107] While arbitrations over iron-ore deliveries are set to start in the last quarter of 2013,[108] the dti is continuing and deepening its investigation into excessive pricing[109] and is now

[104] Mail&Guardian (2013) Gauteng e-tolls just around the corner, 26 May 2013,http://mg.co.za/article/2013-05-26-gauteng-e-tolls-just-around-the-corner, Accessed 14 June 2013.

[105] CSIR (2012) 8th Annual State of Logistics Survey for South Africa 2011: Gearing up for change, http://www.csir.co.za/sol/docs/8th%20SoL%202011_23May2012.pdf, Accessed 14 June 2013.

[106] Creamer T (2011) SA to insist that Kumba honours cost plus iron ore deal, Engineering News 6 April 2011, http://www.engineeringnews.co.za/article/sa-to-insist-that-kumba-honours-cost-plus-iron-ore-deal-2011-04-06.

[107] Mail&GuardianOnline (2011) ArcelorMittal to raise prices over Kumba dispute, 30 March 2010, http://mg.co.za/article/2010-03-30-arcelormittal-to-raise-prices-over-kumba-dispute, Accessed 13 September 2011.

[108] BizCommunity.com (2013) Kumba, ArcelorMittal choose arbitration, 5 April 2013, http://www.bizcommunity.com/Article/196/547/91623.html, Accessed 14 June 2013.

[109] dti (2013) Industrial Policy Action Plan 2013/14-2015/16: Economic sector and employment cluster, 2013.

pursuing plans to establish a joint venture steel mill in South Africa that will include in its agreement 'strong conditions' to ensure government controls.[110, 111]

Similarly, in the plastics manufacturing sector, local polymers producers set prices according to import parity. In an effort to reduce the price of raw materials to the plastics sector, the dti has implemented a phased reduction of import duties on polymers, which should increase competition to favour local plastics manufacturers.[112] Furthermore, in May 2013 the Competition Commission went head to head against Sasol before the Competition Tribunal. Sasol is accused of "excessive pricing" of propylene and polypropylene and of engaging in practices with Safripol, South Africa's only polymer producer, that directly or indirectly, fixes the price of polypropylene.[113, 114] The outcome of this process will hopefully also reduce the high costs of inputs for the local plastics manufacturing sector.

3.4.9 Labour productivity and skills availability

SA's low labour productivity – relative to competitor countries – is the result of a number of factors. The limited supply of artisans and experienced management, particularly those from previously disadvantaged backgrounds, drives up wages for this group.[115] At labour level, union wage agreements have tended to be at above-inflation levels.[116] Challenges within the public basic education and TVET systems also impact the availability of skills for industry, directly through their impact on the generic skills levels within the workforce and through the generation of quality artisans,[117] as well as indirectly through the negative effect on the quality of higher education qualifications.[118]

Taken together, low levels of labour productivity not only drive capital-intensive growth within the sector, but are also considered one of the major factors undermining SA's ability to embrace new technology and innovation and thus compete internationally – particularly with manufacturing plants in the East. Skills shortages and skills gaps on

[110] While lower steel prices would have a positive impact on the input costs for South African manufacturers, the international trend is seeing the replacement of longer-term steel pricing contracts with spot-price markets due to China's rapid economic growth, with the result that the steel industry is becoming increasingly volatile and competitive.

[111] BusinessDay (2013) Volatile times for South African steel industry, 13 March 2013, http://www.bdlive.co.za/business/industrials/2013/03/13/volatile-times-for-south-african-steel-industry, Accessed 14 June 2013.

[112] merSETA (2010) The impact of the 2008/9 global and local economic crisis on merSETA firms: A focus on employment and skills.

[113] Mail&Guardian (2012) Not made in South Africa, 20 April 2012, http://mg.co.za/article/2012-04-20-not-made-in-south-africa, Accessed 27 June 2013.

[114] Mail&Guardian (2013) Plastics pricing melt-down, 17 May 2013, http://mg.co.za/article/2013-05-17-00-plastics-pricing-meltdown, Accessed 27 June 2013.

[115] Nzukuma, KCC, Bussin, M (2011) Job-hopping amongst African Black senior management in South Africa. SA Journal of Human Resource Management/SA Tydskrif vir Menslikehulpbronbestuur, 9(1), Art.#360, 12 pages. http://dx.doi.org/10.4102/sajhrm.v9i1.360.

[116] Spowart Resources (2011) Numsa targets above-inflation wage hike, http://www.salabournews.co.za/index.php/home/archives/210-numsa-targets-above-inflation-wage-hike-fin24.html, Accessed 9 March 2012.

[117] Sabinetlaw (2011) National Artisan Moderation Body Launched, 2 December 2010, http://www.sabinetlaw.co.za/education/articles/national-artisan-moderation-body-launched, Accessed 22 September 2011.

[118] SASIX (undated) Education, http://www.sasix.co.za/files/sectors/Education.pdf, Accessed 9 March 2012.

the other hand limit companies' getting the full value from capital and technological investments and so constrain the economic growth of the sector.[119, 120]

3.4.10 The local political and social context

A number of political and social factors in SA serve to undermine certainty in production and, therefore, also the competitiveness of local firms: A World Bank Survey in 2007 indicated that about 7% of SA respondents claimed that an inadequately educated workforce was a major constraint to business, ranking it fifth *behind* crime, theft and disorder; electricity; access to finance; and corruption.[121] Labour disputes and long bargaining talks also have a destabilising effect on global confidence in the SA industry's ability to maintain a reliable production supply for both domestic and international markets.[122]

The local political and social context has been particularly relevant over the past eighteen months. The Marikana mining strike in August 2012 not only resulted in a devastating loss of life. It also undermined established collective-bargaining structures; led to the downgrading by various rating agencies of some of South Africa's state owned enterprises;[123] and its ongoing effect (in the form of 'wildcat' strikes in the mining sector that reduced mining output) resulted in an overall trade deficit for South Africa of R190 billion over the 2012/13 financial year.[124] Similarly, the protracted wage negotiations and related strikes in the auto industry in 2013 have resulted in BMW dropping BMW SA from consideration for production of the new BMW 3-series model.[125]

3.4.11 Fair and unfair competition

Together the factors outlined above contribute to the SA manufacturing sector being subjected to high levels of competition from imported products, both fair and unfair.

In the current global environment where economic growth has stagnated in many (particularly developed) countries, all producers are seeking new markets and, as a result, SA is experiencing a flood of imported products. Many of the imported products from the East are landed in SA at prices lower than local producers can even purchase the raw materials. The quality of many of these products does not meet the South African Bureau of Standards (SABS) standards (to which local producers must adhere), which is of major concern in respect of 'life and

[119] merSETA (2010) The impact of the 2008/9 global and local economic crisis on merSETA firms: A focus on employment and skills.

[120] Anton Hanekom, PlasticsSA, telephonic interview, 4 July 2012; John Wilson, SATMC, telephonic interview, 29 June 2012.

[121] World Bank (2007) Enterprise Surveys, South Africa Country Profile 2007, http://enterprisesurveys.org/~/media/FPDKM/EnterpriseSurveys/Documents/Profiles/English/South-Africa-2007, Accessed 9 March 2012.

[122] merSETA (2009)Sector Skills Plan 2005-2010.

[123] Mail&Guardian (2013) The economic impact of marikana, 2 November 2013, http://mg.co.za/article/2012-11-02-the-economic-impact-of-marikana, Accessed 27 June 2013.

[124] Mail&Guardian (2013) Marikana effect holds back growth, http://www.citypress.co.za/politics/marikana-effect-holds-back-growth, Accessed 27 June 2013.

[125] Business Day (2013) BMW confirms new model lost to SA through strike, 11 October 2013, http://www.bdlive.co.za/business/2013/10/11/bmw-confirms-new-model-lost-to-sa-through-strike, Accessed 29 October 2013

limb' automotive parts. Despite this, the price sensitivity of the majority of SA consumers means that these products are gaining local market share ahead of locally produced and quality-guaranteed products.[126]

Furthermore, industry representatives are of the opinion that, while many of SA's trade agreements with the BRIC countries (Brazil, Russia, India and China) are politically advantageous; these agreements (which allow foreign products to be imported into the country duty free) will in the long term undermine SA's manufacturing production capacity. This is because many manufacturers in these countries not only have the benefit of economies of scale in order to generate profits off low margins, but are additionally highly subsidised by their governments.[127]

NAAMSA's Vehicle Crime Prevention Committee is working closely with Business Against Crime (BACSA) in order to combat illegal second-hand vehicle importation, particularly from Japan, as well as the illegal importation and dumping of new tyres and automotive components.[128, 129]A n outcome of this collaborative work has been the Second-Hand Goods Act that came into effect on 30 April 2012, and which will improve the identification and recovery of stolen items and the arrest of criminals related to these crimes.[130]

3.4.12 Government expenditure and infrastructure development

Government's infrastructure development programmes have a direct influence on the merSETA's sectors. On the one hand the entire sector is dependent on the infrastructure (specifically the transport infrastructure) for the distribution of its products and, therefore, stands to benefit substantially from the upgrading of the national roads and rail network.[131]

On the other hand both the metals and the plastics industries are suppliers to the building and construction sector and firms that supply government infrastructure-development initiatives are to a large extent shielded from the full impact of the challenges facing the global economy. In February 2012 President Jacob Zuma announced government's intention to undertake a huge campaign of building national infrastructure with a total of 18 large-scale SIPs. This expenditure is part of government's drive to stimulate economic development (national industrialisation, skills development and job creation) through a network of policies and strategies.[132] In his 2013

[126] John Wilson, SATMC, telephonic interview, 29 June 2012; Abie Dunn, Nissan, telephonic interview, 28 June 2012; Roger Pitot, NAACAM, telephonic interview, 3 July 2012.

[127] John Wilson, SATMC, telephonic interview, 29 June 2012; Abie Dunn, Nissan, telephonic interview, 28 June 2012; Roger Pitot, NAACAM, telephonic interview, 3 July 2012.

[128] merSETA (2010)The impact of the 2008/9 global and local economic crisis on merSETA firms: A focus on employment and skills.

[129] Essential Publishing (2010) Supporting the manufacturers, 28 October 2010, http://essentialmag.co.za/index.php?pg=art&bk=187&sq=3585, Accessed 13 September 2011.

[130] Business Against Crime South Africa (2012) Second Hand Goods Act officially launched, 21 May 2012, http://www.bac.org.za/Art/Projects/MS_2nd%20Hand_Goods_Act_Official.pdf, Accessed 27 June 2013.

[131] CSIR (2010) 7th Annual State of Logistics Survey for South Africa 2010, http://www.csir.co.za/sol/docs/7th_SoL_2010_March.pdf, Accessed 13 September 2011.

[132] Presidency (the) (2012) State of the Nation Address By His Excellency Jacob G Zuma, President of the Republic of South Africa on the occasion of the Joint Sitting of Parliament, Cape Town, 9 February 2012, http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=24980&tid=55960, Accessed 10 March 2012.

Budget Speech, former minister of Finance Pravin Gordhan announced that Government will invest R827 billion over the next three years in building new and upgrading existing infrastructure.[133]

3.4.13 Environmental considerations and the green agenda

Finally, impacting on all three merSETA sectors is the cost associated with meeting increasing environmental pressures. The nature of metals manufacturing, especially at the milling stage where purification of the raw material demands a number of high-temperature processes, subjects this subsector to stricter legislation; for example, the Waste Management Act (2008)[134] and the National Waste Management Strategy. Furthermore, the strategy places the responsibility for full life-cycle waste management on the private producer, which means that companies will increasingly have to consider the final disposal or recycling of manufactured goods.[135]

The SA government also introduced a CO2 Vehicle Emissions Tax effective from 1 September 2010. This was applicable to all new passenger vehicles sold and meant that buyers of new cars have had to pay R75 for each gram of carbon dioxide emitted per kilometre above the 120g/km mark, which increased vehicle prices by an average of between 2% and 3%. In April 2013 government increased this emissions tax to R90 for light passenger cars (above the 120g/km mark) and R125 for double cabs (which were not previously taxed) above 175g/km. While this means that small cars are generally being taxed between R200 and R600 extra and with larger vehicles generally between R800 and R1 500 more,[136] these taxes are calculated as part of the cost of production or importation and not added as a tax to the final product. This means they are largely 'invisible' to consumers and not considered as part of their purchasing decisions, to a large extent defeating the objective of incentivising the sale of more-fuel-efficient vehicles. From a global consumer perspective, however, the tax incentives (as opposed to tax penalties) that are applied in many other countries, and consumer demands for cleaner and more fuel-efficient vehicles, is driving the use of 'greener' technologies within the automotive industry.[137]

The Recycling and Economic Development Initiative of South Africa (Redisa) is set to start with the implementation of its Integrated Industry Waste Tyre Management Plan. The plan, overseen by Redisa, is an initiative of the DEA to create a formal and centralised recycling process. Part of the plan includes a R2.30 per kilogram plus VAT levy imposed on all tyre manufacturers to hold them to account for full product life-cycle management and is applicable

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[133] South African Government (2013) National Infrastructure Plan, http://www.info.gov.za/issues/national-infrastructure-plan/index.html, Accessed 13 June 2013.

[134] Republic of South Africa (2009) National Environment Management: Waste Act, No 59 of 2008, http://www.info.gov.za/view/DownloadFileAction?id=97351, Accessed 9 March 2012.

[135] DEA (2011) National Waste Management Strategy, November 2011, http://www.info.gov.za/view/DownloadFileAction?id=154171, Accessed 9 March 2012.

[136] IOL Motoring (2013) Green grab: SA CO2 tax to increase, 11 April 2013, http://www.iol.co.za/motoring/industry-news/green-grab-sa-co2-taxes-to-increase-1.1498937#.Ubltw-c3CE4, Accessed 13 June 2013.

[137] NAAMSA (2011) NAAMSA media release, 5 August 2010, Comment on the impending CO^2 vehicle tax regime effective 1st September 2010 and reaction to National Treasury press release regarding an extension to the scope of application of emissions taxation to include light commercial vehicles, www.naamsa.co.za, Accessed 16 September 2011.

on all tyres imported or manufactured from 1 October 2012.[138] While extremely positive from an environmental and employment creation perspective, the plan will nevertheless have financial implications for tyre manufacturers and importers.[139]

The past two years however, has seen a significant shift from viewing the green agenda in terms of only costs and compliance, to seeing it as a strategic cost management – ad even profit – opportunity.[140]

The plastics sector in particular suffers from a poor image related to environmental concerns. Despite this, the sector is in fact making considerable advances in respect of recycling, with a positive impact on the sector, the economy and the environment: The results from the first annual South African Plastic Recycling Organisation (SAPRO) SA Plastics Recycling Survey in 2011 revealed a 32% increase in the tonnages of plastics recycled over the four years to the end of 2009, and highlights the positive impact of plastic recycling on the economy and job creation. The recycling industry supports about 400 companies (recyclers and collectors and transport companies) and roughly 34 500. Without recycling certain products would be at least 20% more expensive (e.g. carrier bags, refuse bags, furniture shrouds, irrigation piping, etc.). The environmental benefit is seen in the reduction of the need for landfill sites and reduced litter levels.[141]

Overall, the automotive, metals and plastics sectors all want to be seen to be part of the solution and not part of the problem:

- merSETA's Plastics Chamber identified 'Sustainability, including managing the environmental impact' as the top of its list of key drivers for the future of the sector.[142]
- merSETA's Motor Chamber identified the 'Green Agenda' as of critical importance to the motor industry, since it is a major creator of waste.[143]
- The merSETA has prioritised skills for sustainable development as part of its Strategic Plan.

[138] Redisa (2013) http://www.redisa.org.za/.Accessed 27 June 2013.

[139] The Retail Motor Industry Organisation (RMI) delayed the implementation of the plan through court appeals, arguing against the mandatory government initiative on the basis that its members had already spent more than a decade drawing up a different plan in consultation with various environment ministers. Business Day Live (2013) SANCO plans to establish tyre recycling plant in Tshwane, 28 May 2013, http://www.bdlive.co.za/national/2013/05/28/sanco-plans-to-establish-tyre-recycling-plant-in-tshwane, Accessed 27 June 2013.

[140] merSETA (2012) Motor Research Project: Employment and Educational and Skills audit of the merSETA Motor Chamber, First interim report: Impact study, 1 October 2012.

[141] Supermarket.co.za (2013) Survey reveals 32% increase in recycling and positive impact on economy, 4 July 2011, http://www.supermarket.co.za/news_articles.asp?ID=2975, Accessed 27 June 2013.

[142] merSETA (2013) Plastics Chamber Research Project.

[143] merSETA (2013) Motor Research Project: Employment and Educational and Skills Audit of the merSETA Motor Chamber: Third and final report: Implementation strategy, 24 January 2013.

3.4.14 Sector responses to emerging trends

Recent research by merSETA's motor chamber[144] has identified a number of emerging trends that will, to a greater or lesser degree, impact on all the merSETA sectors over the medium to long-term. The impact of these emerging trends on merSETA's sectors will continue to be monitored and developed in future SSPs. The trends include:

Social media and 'e-commerce' and 'm-commerce':

Brands are increasingly being taken from their home websites and into consumers' wider social environments through social media platforms such as Facebook, Twitter, bogs and customer communities. At the same time, there are changes in the way that people are able to purchase products and services – through the internet (e-commerce) and through web-enabled smart phones (m-commerce). These factors are linked to increased mobile connectivity across the population and need to be taken into account by companies if they are to remain relevant and competitive.

Diversified consumer financing:

As traditional banking changes and is replaced by increasing levels of internet and mobile phone banking, so more industries are becoming directly involved in providing financing to their customers. Motor financing is just one example.

Changing population dynamics:

There is evidence in South Africa that the middle class of the population is growing. This is the population segment that is considered to be the 'consumer class' and therefore a major economic driver. An increase in the number of people in this population segment will increase the demand for new cars and new homes.

General global trends also show a reduction in national birth rates and an aging of the global population. This is associated with: an increasing number of older, retired and less active people in the population; increased dependency ratios and a greater economic burden on the economically active portion of the population; and changes in the demand and supply of labour. While South Africa's population is still largely youthful, this trend nevertheless needs to be monitored in respect of its longer term impact on the demand for certain products and services, as well as on skills development planning.

[144] merSETA (2013) Motor Research Project: Employment and Educational and Skills Audit of the merSETA Motor Chamber: Third and final report: Implementation strategy, 24 January 2013.

3.5 GOVERNMENT ECONOMIC DEVELOPMENT POLICIES AND STRATEGIES

A range of national social and economic development policies and strategies have a potentially large impact on the growth and competitiveness of the merSETA sectors. These are summarised below. The final section briefly considers industries' views on the effectiveness of the various policies and strategies.

3.5.1 National Development Plan (NDP)

The National Development Plan: Vision for 2030 has the vision of creating a more inclusive and equitable SA society in which the economy serves the needs of all citizens regardless of race, gender, wealth, skills level and geographical location. It offers a long-term perspective and defines the desired destination and the role that each sector of society must play in achieving it. While the NDP was only finalised in November 2011, it now stands as the overarching vision guiding the resource allocation to, and the implementation of, most other government social and economic policies.[145] In this way the NDP incorporates the New Growth Plan economic policy and builds on the Industrial Policy Action Plan's employment-creation target by proposing the ambitious goal of 11 million jobs created by 2030. The NDP proposes that this job creation is to be done partly through the promotion of labour-absorbing industries and through mobilising all sectors in support of this national vision. In particular, the NDP highlights the fact that labour-intensive manufacturing is good for both economic growth and employment creation. Furthermore, economic growth must be supported by improving the national skills base through improving education and vocational training.[146]

3.5.2 New Growth Plan (NGP)

The New Growth Plan aims at enhancing economic growth, employment creation and equity over the short- to medium-term. Through a focus on growing a range of economic sectors, the policy intends to create 5 million jobs in the SA economy between 2010 and 2020. Priority sectors include: infrastructure development, agriculture, mining, the 'green' economy, manufacturing (in particular the sectors highlighted by the recent IPAP), and tourism and high-level services.[147]

[145] SA News (2013) The National Development Plan unpacked, 9 February 2013, South African Government News Agency, http://www.sanews.gov.za/south-africa/national-development-plan-unpacked, Accessed 25 June 2013.

[146] Republic of South Africa (2011) National Development Plan: Vision for 2030, http://www.info.gov.za/view/DownloadFileAction?id=154423, Accessed 10 March 2012.

[147] EDD (2010) The new growth path: the framework, 23 November 2010, http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=14787&tid=24857, Accessed 9 March 2012.

3.5.3 Revised Industrial Policy Action Plan (IPAP)

IPAP 2010/11-2012/13 clusters its priority sectors into three groups: Cluster 1 includes qualitatively new areas of focus; Cluster 2 contains the existing IPAP sectors that will receive scaled-up and broadened interventions; while Cluster 3 focuses on sectors with potential for long-term advanced capabilities. IPAP 2013/14-2015/6 continues to support these same sectors, and provides feedback on the implementation of various research projects, policies and programmes in support of these sectors.[148] The merSETA sector is be impacted by: the new focus on the metal fabrication, capital equipment and transport equipment sector (Cluster 1); and the continued and increased support for the automotive, components, medium- and heavy commercial vehicles sector and the plastics, pharmaceuticals and chemicals sector (Cluster 2). In the medium- to long term the merSETA sector will benefit from the attention that is being placed on developing the advanced materials sector (Cluster 3). Overall IPAP aims to create 160 000 direct jobs in industry over a ten-year period.[149]

Programmes under IPAP that are aimed at the automotive manufacturing industry are summarised in the table below. The merSETA has engaged with the dti to support the IPAP in terms of skills development. More information about this engagement is presented in Section 5.5 of this SSP.

Programme	Key objectives	Occupations/ skills demanded*
Automotive Production and Development Programme	Regulatory amendments and implementation of the tariff regime, production incentive and volume assembly allowance .	n/a
Identification of opportunities to broaden and deepen automotive component manufacturing	An OEM-led strategy for further localisation of technologically advanced suppliers of identified products in five key subsectors such as electronics, body parts, interiors, exteriors, and chassis and drive train.	
Competitiveness Improvement of Automotive Component Manufacturers (CIACM)	Firm-level manufacturing competitiveness improvement through benchmarking, gap identification and assistance to close competitiveness gaps by engineers/advisors and post-intervention assessment.	
Enterprise Reference Architecture (ERA) portal for SME suppliers	Portal to help firms optimise existing technology investments through best practices.	
Mentorship of SME component manufacturers	Facilitation of learning for component manufacturers, especially 3rd- and 4th tier suppliers through the provision of mentors over a specified, short period of time according to pre-determined	Management skills for SME owners

[148] dti (2013) Industrial Policy Action Plan 2013/14-2015/16: Economic sector and employment cluster, 2013.

[149] dti (2010) Industrial Policy Action Plan 2010/11-2012/13: Economic sector and employment cluster, February 2010.

Programme	Key objectives	Occupations/ skills demanded*
	guidelines.	
Medium and Heavy Commercial Vehicle (MHCV) Development Action Plan	Completion of a study to identify opportunities and interventions to resuscitate the MHCV sector.	n/a
Commercialise South Africa's electric car	Provision of appropriate support to encourage local manufacture of environmental vehicles (EVs) and related components, installation of infrastructure for such EVs, creation of testing facilities, provision of demand-stimulation mechanisms and public education on the use and benefits of alternative-energy-source vehicles.	No specific skills/ occupations identified at present
IDC initiatives: • Gas bus industry • Diesel bus & truck initiative	IDC piloting introduction of a gas-fuelled bus as a 'greening' initiative with a view to changing large parts of the bus fleets to gas rather than diesel IDC. making funding available for Euro 4 diesel buses and trucks.	New generation of technicians, artisans, safety officers Diesel mechanics, other apprentices to be trained by OEMs

Table 3-3 Programmes aimed at the automotive manufacturing industry under IPAP 2010/2011 – 2012 – 2013*

Note: Overall these initiatives are anticipated to create 160 000 jobs in the sector.

Source: the dti (2010)

In essence, IPAP has become an umbrella for a number of other industry-focussed development strategies, plans, programmes and initiatives, all of which support IPAP in reaching its goals. Discussed below are: the Competitive Supplier Development Programmes (CSDP); the Manufacturing Competitiveness Enhancement Programme (MCEP); the Automotive Production and Development Plan (APDP); the Metals Customised Sector Plan (CSP); the Minerals Beneficiation Strategy; the National Tooling Initiative (NTI); the National Foundry Technology Network (NFTN): and the Special Economic Zones (SEZs).

Competitive Supplier Development Programmes (CSDP)

The CSDP policy, launched in 2007, aims to leverage the procurement practices of state-owned enterprises (SOEs) to increase local content at the same time as improving the competitiveness of the local supplier base.[150] Transnet through its CSDP[151] committed in 2008 to localising its supply chain of currently imported manufactured products, while at the same time Eskom's CSDP[152] committed to increasing local spend by R13.5bn. The biggest commitment by Transnet under the CSDP has been the deal between Transnet and General Electric that sees 90 of the 100 diesel

[150] DPE (2007) Competitive Supplier Development Programme.

[151] Transnet (2008) Transnet Supplier Development Programme, http://www.dpe.gov.za/res/transnetCSDP1.pdf, Accessed 9 March 2012.

[152] Eskom (2008) Eskom Competitive Supplier Development Programme 2008-2013, http://www.eskom.co.za/content/Eskom_SDP_2008-2013.pdf, Accessed 10 March 2012.

locomotives that have been purchased by SA being assembled locally. This is part of the SOEs' plan to more than double the level of local content in vehicles.[153]

The second phases of Eskom and Transnet's local procurement plans were launched in 2012.[154] Progress in implementation of this phase includes:[155]

- In December 2012 the Public Rail Agency of South Africa (PRASA) awarded a 10-year contract to build 3 600 coaches to Gibela Rail Consortium, who has committed to achieve 69% local content over the duration of the contract.
- Transnet Freight Rail issued a request for a proposal for the procurement of 1 064 locomotives (599 dual-voltage electric and 465 diesel) as part of its R300 billion, seven-year capital investment programme. The local content requirement is 55% for the diesel locomotives and 60% for the electric locomotives.
- Eskom issued a tender for amorphous transformers. The contract (with 80% local content requirement) was awarded to local manufacturers.

Manufacturing Competitiveness Enhancement Programme (MCEP)

The MCEP was launched in May 2012 with a budget allocation of R5.8 billion over the three-year period of the current medium term expenditure framework. The programme provides enhanced manufacturing support aimed at encouraging manufacturers to upgrade their production facilities in a manner that sustains employment and maximises value-addition in the short to medium term. To date merSETA's metals and plastics sectors have been beneficiaries of MCEP grants, with the direct result being the retention of a number of jobs in these sectors.[156]

Automotive Production and Development Programme (APDP)

The APDP, which is essentially the CSP for the automotive industry, formally replaced the Motor Industry Development Programme (MIDP) in 2013. This programme, which is in line with World Trade Organisation (WTO) regulations, aims to increase local production to 1.2 million vehicles by 2020, and to provide assistance to component manufactures so that they can provide cost-competitive components to the OEMs and international markets via exports.[157] The APDP includes a local assembly allowance as well as an Automotive Investment Scheme

[153] Engineering News (2011) Govt wants Transnet to more than double local content of new locos, http://www.engineeringnews.co.za/article/govt-wants-transnet-to-more-than-double-local-content-of-new-locos-2011-05-19, Accessed 10 March 2012.

[154] Creamer Media (2012) Eskom, Transnet to unveil industry-supporting procurement plans soon, http://www.engineeringnews.co.za/article/eskom-transnet-to-unveil-industry-supporting-procurement-plans-soon-2012-03-01, Accessed 10 March 2012.

[155] dti (2013) Industrial Policy Action Plan 2013/14-2015/16: Economic sector and employment cluster, 2013.

[156] dti (2013) Industrial Policy Action Plan 2013/14-2015/16: Economic sector and employment cluster, 2013.

[157] dti (2013) Industrial Policy Action Plan 2013/14-2015/16: Economic sector and employment cluster, 2013.

(AIS) that provides a taxable cash grant of 20% for qualifying investments in productive assets. The latter component was brought forward and implementation began in 2009.[158]

The finalisation of the Investment Guidelines and Investment Projects, and efforts by manufacturers to gear up for the impending full implementation of the APDP, resulted in NAAMSA reporting that investment in capital expenditure in the new vehicle production subsector increased substantially through 2010.[159] Industry capital expenditure currently remains close to record levels and is projected to exceed R5 billion in 2013. In turn industry production is expected to rise significantly – particularly light commercial vehicles – over the next few years. [160]

Metals Customised Sector Plan (CSP)

The CSP for the priority sector metals was published by the dti in 2005. The strategic vision of the plan is that "by 2014, SA will have a globally competitive metals sector, optimally utilising the comparative advantages of abundant mineral resources, skilled labour force and world-class technologies to produce and market high value-added products in the prioritised industries." Programmes in the plan include the promotion of local metals beneficiation, maximising local content through backward linkages, and upgrading production capabilities in downstream industries.[161]

Minerals Beneficiation Strategy

The Minerals Beneficiation Strategy seeks to increase employment opportunities in the SA economy through promoting downstream (more labour-intensive) sectors, as well as improving the linkages between sectors, in the metals value chain. Five sectors are proposed as key focus areas: energy commodities; iron and steel; pigment and titanium metal production; catalytic converters and diesel particulate filters; and jewellery fabrication. In addition to this, the strategy seeks to reduce the cost of raw materials to local industry. [162]

Implementation of beneficiation policies have thus far been relatively unsuccessful, with the result that minerals beneficiation still remains an untapped opportunity. As part of IPAP 2013/14 – 2015/16, government has committed to undertaking comprehensive research that will support the development of a strategy and action plan to advance backward and forward beneficiation in a selected group of key minerals value chains namely:

- Ferrous (iron ore, ferro-alloys, steel and specialty steels);

[158] dti (2011) Automotive Production and Development Programme, presentation at the Automotive Industry Conference 2011, 7 September 2011, http://www.aidc.co.za/files/Day2/Session1/01_AutoIndustryConferencePresentation_dti.pdf, Accessed 10 March 2012.

[159] NAAMSA (2011) New vehicle manufacturing industry: Capital expenditure 2000-2011, www.naamsa.co.za, Accessed 16 September 2011.

[160] NAAMSA (2013), Quarterly Review of Business Conditions: Motor Vehicle Manufacturing Industry: 1st Quarter 2013, www.naamsa.co.za, Accessed 26 July 2013.

[161] dti (2006) Metals Sector Development Strategy: Trade and Investment South Africa – Customised Sector Programme – Metals.

[162] DMR (2011) A beneficiations strategy for the minerals sector of South Africa, June 2011.

- platinum Group Metals (PGMs);
- titanium and pigments;
- polymers (from coal, gas and oil); and
- mining inputs.[163]

National Tooling Initiative (NTI)

The NTI aims to rehabilitate the SA Tool, Die and Mould Making industry and through this contribute to growth in manufacturing and technical skills development as well as strengthening human capacity to increase overall competitiveness of the tooling industry in SA. The initiative focuses on five driving programmes: skills and expertise development; capacity expansion, Small, Medium and Micro Enterprises (SMMEs) and B-BBEE structuring; technology recapitalisation; competitiveness improvement and export development; and public-private partnerships (PPPs) as a governance structure.[164] R200 million has recently been allocated from the National Skills Fund (NSF) to the NTI in order to train 970 new apprentices.[165]

National Foundry Technology Network (NFTN)

The NFTN was established by the dti as a key foundry industry support initiative. The goal of the network is to facilitate the development the SA foundry industry. Global competitiveness is to be achieved through appropriate skills training and technology transfer and diffusion. In addition to this, one of the key objectives of the NFTN is to "promote and develop the SMEs in the foundry industry to ensure their economic sustainability and to ensure technology empowerment of previously disadvantaged individuals (PDIs)".[166]

Special Economic Zones (SEZs)

The Special Economic Zones Bill, which was gazetted on 1 March 2013 and introduced in Parliament on 5 March 2013,[167] is intended to replace the dti's IDZ programme initiated in 2000. The SEZ programme, which will not be limited to the development of port areas, seeks to promote trade, economic growth and industrialisation in targeted areas across SA that will take account of the economic development needs and challenges of specific regions in order to improve current spatial development inequalities.[168] The national budget for 2013/14 states

[163] dti (2013) Industrial Policy Action Plan 2013/14-2015/16: Economic sector and employment cluster, 2013.

[164] South African National Tooling Initiative (2012) http://www.ntipweb.co.za, Accessed 10 March 2012.

[165] dti (2013) Industrial Policy Action Plan 2013/14-2015/16: Economic sector and employment cluster, 2013.

[166] National Foundry Technology Network (2012) http://www.nftn.co.za, Accessed 10 March 2012.

[167] Dti (2013) Memorandum on SEZ Bill 2013 following public consultations, http://www.dti.gov.za/parliament/Memo-SEZ.pdf, Accessed 25 June 2013.

[168] dti (2012) Policy on the Development of Special Economic Zones in South Africa: For public comment only.

that money has been allocated for the building of world class industrial parks, and that tax incentives to enhance this initiative are currently underway.[169]

The study undertaken to develop a SEZ in the Saldanah Bay area highlights the importance of local skills development initiatives that target the training of maintenance personnel in chemical, mechanical, electrical and control engineering.[170] The merSETA has recognised the need to co-ordinate with the dti around skills development initiatives in support of SEZs.

3.5.4 Industrial Development Corporation (IDC) Jobs Scheme

In February 2011 the IDC launched a R10 billion scheme aimed at creating or retaining jobs in its priority sectors, which include manufacturing and infrastructure development. Competitive funding over a five-year period will be available to companies, with a major focus on entrepreneurs. The scheme aims to create an additional 40 000 to 50 000 employment opportunities in support of IPAP's employment-creation goals.[171] In April 2013, the IDC earmarked R1 billion of the remaining R6.5 billion for the support of businesses owned by youth (i.e. below the age of 35).[172]

3.5.5 Local Procurement Accord

A Local Procurement Accord was signed by government, business, organised labour and community representatives on 31 October 2011. An aspirational target of 75% local content was set, along with intermediate steps to achieve this goal. Under the accord local production and not only Black Economic Empowerment (BEE) status will be given consideration in government procurement procedures.[173]

3.5.6 Consumer Protection Act

Section 61 of the Consumer Protection Act has major implications for the motor industry. It requires that a producer, importer, distributor or retailer of goods supplied after 24 April 2010 is liable to a consumer on a no fault basis for harm, including death, injury, physical damage or associated economic loss, which was caused by unsafe

[169] Republic of South Africa (2013) 2013 Budget Speech by the Minister of Finance Pravin Gordhan, 27 February 2013, http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=34533&tid=99785, Accessed 28 June 2013.

[170] dti (undated) Saldanah Bay IDZ Feasability Study.

[171] Engineering News (2011) IDC unveils details of R10bn jobs scheme , http://www.engineeringnews.co.za/article/idc-unveils-details-of-r10bn-jobs-scheme-2011-02-22, Accessed 10 March 2012.

[172] IDC (2013) IDC announces Gro-E Youth Scheme, 18 April 2013, http://idc.co.za/media-room/press-release/media-releases-2013/363-idc-announces-gro-e-youth-scheme, Accessed 26 June 2013.

[173] EDD (2011) Media Statement on Local Procurement Accord, 31 October 2011, http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=22829&tid=47666, Accessed 10 March 2011.

or defective goods. This means that retailers could be held responsible for errors made by the producer, importer or distributor, and that motor retail companies may need to do their own quality control.[174]

3.5.7 Special Infrastructure Projects (SIPs)

The State of the Nation Address, delivered by President Jacob Zuma on 14 February 2013, again highlighted government's commitment to reducing national unemployment levels and supporting longer-term economic growth and development though its massive infrastructure development drive. Overseen and driven by the Presidential Infrastructure Coordination Commission (PICC), the 17 SIPs focus on the development and integration of rail, road and water infrastructure.[175]

In 2012 the allocation for government infrastructure projects over the period of the MTEF was R845 billion.[176] Finance Minister Pravin Gordhan in his budget speech for 2013/14 stated that due to continued global economic uncertainties and a poorer than expected national growth rate last year, government has had to take measures to control growth in spending: Spending plans have been reduced by R10.4 billion through reprioritisation, savings and a draw-down on the contingency reserve. Despite this, the government's continued commitment to infrastructure development is underpinned in the allocation of R827 billion to be spent over the next three years on building infrastructure. The financing for these projects is said to be in place, and is not affected by the spending cuts in the recent national budget.[177]

3.5.8 Industry views on government support strategies

While government argues that its basket of strategies is intended to address the underlying structural problems in the South African economy, engagement with industry as part of the 2012 SSP update process revealed widespread concerns that the current and projected global and local economic situations are not compatible with government's targets for growth and job creation in the sector.

It is anticipated that the APDP, which started officially in 2013, will bring both winners and losers. It is hoped that many components manufacturers will be among the winning group; however, losers will include export-oriented

[174] merSETA (2013) Motor Research Project: Employment and Educational and Skills Audit of the merSETA Motor Chamber: Third and final report: Implementation strategy, 24 January 2013.

[175] Republic of South Africa (2013) State of the Nation Address by His Excellency Jacob G Zuma, President of the Republic of South Africa on the occasion of the Joint Sitting of Parliament Cape Town,14 February 2013, http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=34250&tid=98676,, Accessed 28 June 2013.

[176] The national budget 2012/13 allocated the spending as: R300 billion for the energy sector and R262 billion for transport and logistics. Also included were the amounts of R800 million for the improvement of university infrastructure and the preparatory work towards building two new universities in Mpumalanga and the Northern Cape, R450 million for upgrading 30 nursing colleges, R426 million for the initial work on rebuilding five major tertiary hospitals, and R300 million for building two new high courts. In addition R1 billion was been allocated to the Passenger Rail Agency of South Africa for building three new depots, and a further R4 billion for purchasing new coaches.[176]

[177] Republic of South Africa (2013) 2013 Budget Speech by the Minister of Finance Pravin Gordhan, 27 February 2013, http://www.info.gov.za/speech/DynamicAction?pageid=461&sid=34533&tid=99785, Accessed 28 June 2013.

companies (who were heavily incentivised under the MIPD), including the catalytic convertor subsector.[178] In 2010 the catalytic convertor subsector indicated that it had lost new business in excess of R10 billion over the preceding 12 to 18 months as a result of the long period of uncertainty regarding industry support prior to the announcement of the APDP and the subsequent withdrawal of incentives for the subsector under the new plan. Furthermore, the Catalytic Convertor Interest Group warned at that time that the impact of these contract losses would start to be seen in the figures from around 2011 to 2012.[179] Industry interviews revealed that there is already anecdotal evidence of major job losses at catalytic convertor manufacturers and that the subsector is currently struggling. On the other side of the coin, industry has adopted a 'let's wait and see' approach to the intended positive impact of the APDP on the rest of the components and plastics manufacturers that supply the auto sector, while at the same time has indicated that its future viability rests on the realisation of the anticipated positive benefits of the programme.[180]

Government's new infrastructure projects are hailed by industry as very positive for national development. All of the merSETA's sectors are anticipating the value of the indirect benefits; i.e. those benefits resulting from having access to improved road, rail and port infrastructure and services. Not all sectors, however, anticipate getting direct benefit from the implementation of the projects themselves; only the metals sector and certain of the plastics manufacturing subsectors are likely to become direct suppliers to the projects. Furthermore, industry argues that projects of this magnitude take considerable lengths of time to implement and government does not have a very good track record for easy and speedy procurement processes for infrastructure projects. Thus, even the direct benefits to the merSETA sector are only likely to become evident within a couple of years' time.[181]

The Local Procurement Accord is seen as a very positive development, particularly for the plastics sector, which is a supplier to a wide range of other manufacturing sectors in the country. PlasticsSA is working with the IDC to identify the types and levels of new plastics products that will be needed in SA in the short- to medium-term future and to ensure that the sector has the capacity to manufacture. Additionally, the sector has undertaken recent workshops with the dti in four provinces on the Local Procurement Accord with the aim of developing a list of products that can become 'designated' products for local content.[182] The process of getting products designated is, however, long and onerous and unless tackled at an industry level is likely to put a lot of local manufacturers off doing so, despite the potential benefits once designation is completed. For those that do manage to get their

[178] Roger Pitot (2012) NAACAM, telephonic interview, 3 July 2012.

[179] Engineering News (2012) Catalytic convertor industry and DTI at incentives impasse, 5 August 2010, http://www.engineeringnews.co.za/print-version/catalytic-converter-industry-and-dti-at-incentives-impasse-2010-08-05, Accessed 13 July 2012.

[180] Henk Langenhoven, Seifsa, telephonic interview, 27 June 2012; Anton Hanekom, PlasticsSA, telephonic interview, 4 July 2012; Roger Pitot, NAACAM, telephonic interview, 3 July 2012; John Wilson, SATMC, telephonic interview, 29 June 2012.

[181] Henk Langenhoven, Seifsa, telephonic interview, 27 June 2012; Anton Hanekom, PlasticsSA, telephonic interview, 4 July 2012; Roger Pitot, NAACAM, telephonic interview, 3 July 2012; John Wilson, SATMC, telephonic interview, 29 June 2012; Abie Dunn, Nissan, telephonic interview, 28 June 2012.

[182] Anton Hanekom, PlasticsSA, telephonic interview, 4 July 2012.

products designated, however, the benefits of the programme are also only likely to show in the medium-term future.[183]

The SEZ policy is still very new and industry has not fully grappled with it yet. Initial feelings across the board are, however, that while start-up companies may find some benefit in locating themselves within the SEZs, the incentives being offered are too low to get existing companies to relocate.[184]

The Metals Beneficiation Strategy is broad and there have been a number of implementation challenges, particularly in relation to raw-material steel pricing. While the strategy has the potential to grow the metals sector substantially, this cannot be done without other support such as a strong local tooling sector. With regard to the latter, the feelings are that there has not been enough commitment from government to grow tooling, with the overall result that the Metals Beneficiation Strategy has not had any real impact on the metals sector as yet.[185]

Finally, it must be noted that merSETA sectors have not yet recovered fully since the economic recession of 2008/9 and are now all facing increasing competition from imported products, particularly from the East. These imports are to a large extent the result of government trade agreements with the BRIC countries. Industry recognises that while these agreements may be politically expedient, government is systematically ignoring warnings that local manufacturing is under serious threat. These Eastern producers, who benefit from economies of scale and high levels of government subsidisation, are now making full use of their increased access to the SA market in order to counter some of the losses in demand from traditional markets that are currently under pressure (such as Europe). Local producers are unable to compete in respect of price and are losing market share. Industry argues that the negative impact of government's refusal to provide the manufacturing sectors with any direct protection against imports will be greater than any of the potential positive benefits arising from either the specific or the general industry support strategies.[186]

3.6 CONCLUSIONS

This chapter has reflected on the economic performance of the metals, automotive and plastics manufacturing industries in SA, the context for both skills demand by the sector, and skills development within the sector. Despite another year having passed, the ongoing consequence of the economic recession of 2008/9 on the sector continues to be evident. The IMF forecasts that while prospects have improved again since the global recession, the road to recovery will remain bumpy, and that policy uncertainty in Europe and the United States will continue to have a

[183] Henk Langenhoven, Seifsa, telephonic interview, 27 June 2012.

[184] Henk Langenhoven, Seifsa, telephonic interview, 27 June 2012; Anton Hanekom, PlasticsSA, telephonic interview, 4 July 2012; Roger Pitot, NAACAM, telephonic interview, 3 July 2012; John Wilson, SATMC, telephonic interview, 29 June 2012.

[185] Henk Langenhoven, Seifsa, telephonic interview, 27 June 2012; Hosea Morapedi, merSETA, interview, 5 July 2012.

[186] Henk Langenhoven, Seifsa, telephonic interview, 27 June 2012; Anton Hanekom, PlasticsSA, telephonic interview, 4 July 2012; Roger Pitot, NAACAM, telephonic interview, 3 July 2012; John Wilson, SATMC, telephonic interview, 29 June 2012; Abie Dunn, Nissan, telephonic interview, 28 June 2012.

negative spill-over impact on global economic recovery. This is particularly so for SA in light of the fact that these regions represent our main export markets.

Industry, however, also concedes that the reductions in global and local demand for manufactured products and commodities that have characterised the past few years have merely exposed and exacerbated the underlying structural problems in the SA economy and those factors that have had generally negative consequences for the sector since 2002. These include: the reduced availability of consumer credit; the exchange rate and currency volatility; increasing customer demands for higher quality and variety at lower prices; global advances in technology and the investments in human and fixed capital that this requires; high administered and logistics costs for relatively low levels of service; high raw-material input costs and variable availability; comparatively low labour productivity and skills availability; the uncertain and sometimes volatile local political and social context; high levels of both fair and unfair competition; government expenditure and infrastructure development plans; and increasing considerations for the environment and the wider green agenda and the associated costs of compliance.

Government now has a plethora of strategies and policies (backed by budget commitments) that are aimed at addressing some of these underlying structural problems and, in the process, supporting economic and employment growth in the manufacturing and infrastructure development sectors. However, in the light of the current global and local economic circumstances, industry is struggling to reconcile growth targets with the current economic reality they face and anticipate facing in the medium-term future. Overall, industry has adopted a 'let's wait and see' approach to the intended positive outcomes, while at the same time has indicated that its future viability rests on the realisation of the anticipated positive benefits of these programmes.

4 THE DEMAND FOR LABOUR

4.1 INTRODUCTION

This chapter describes the demand for labour from a range of different perspectives – a central issue for this SSP. Firstly there is a discussion of employment trends within the merSETA sector in respect of total employment as well as occupational demand and secondly there is a discussion of remuneration trends within the sector.

The third part of this chapter considers future demand for labour from the merSETA sector and presents the results of a labour-demand forecasting model developed for the merSETA

The final section of the current chapter presents the factors that impact on the future demand for skills in the sector. These include: economic recovery and future growth rates; government policies aimed at sector support; the shift towards a greater proportion of skilled workers; variations in regional demand for skills; the mobility of skills within the local and international labour markets; the rate of replacement demand; the quality of the skills supplied to the sector; transformation imperatives; and the skills required to support government's development agenda.

4.2 TRENDS IN EMPLOYMENT IN THE MERSETA SECTOR

4.2.1 Total employment

The recent Manufacturing Survey conducted by BER sites subdued outcomes after the performance witnessed in the first and second quarters of 2014 particularly with respect to disappointing domestic demand and hence lower employment.

The average year-on-year percentage changes in employment between 2000 and 2014 for the merSETA sectors cluster. The first notable fact is that with the single exception of the basic iron and steel sector, all merSETA sectors saw contraction in employment during 2009 and most still in 2010 and most recently in 2013. Employment in the plastics sector stabilised through 2012, the rubber sector exhibited positive employment growth in both 2011 and 2012, however there were sharp reductions in 2013, and in fact all sectors saw a decline in employment barring machinery and equipment. Industry opinion is that employment increases in the rubber and plastics sectors were due to unemployed learners, and thus an increase in temporary rather than permanent workers.[187] Furthermore the Adcorp reports postulate that this trend is on the increase among lower skilled workers with permanent

[187] Opinions expressed by merSETA chamber representatives at meeting on 3 July 2013.

employment figures decreasing for higher skilled workers. Adcorp intimates that there is a structural shift in the labour market towards outsourcing of lower skilled workers to employment agencies[188]

The basic iron and steel sector saw increasing employment between 2008 and 2010, after three years of employment contraction between 2005 and 2007. Data for 2011, 2012 and 2013 however show reductions in employment in this sector again. For the basic non-ferrous metals sector, 2010 has been the only year since 2008 in which employment in the sector grew. And while employment contraction through 2011 was minimal, at -11.2% the figure for 2012 is substantial.

The machinery and equipment sector saw modest but increasing employment growth between 2001 and 2007. Following the recession, the sector is again exhibiting minor, but positive, employment growth for 2011 and 2012 with somewhat more of a significant increase in 2013. Finally, for the motor vehicle, parts and accessories sector employment contraction has been the norm in the past 12 years. 2000 was the last year in which the sector showed any substantial employment growth. On the positive side it appeared as if employment levels had been relatively stable since the major job losses of 2009 and 2010 but the sector has succumbed to the overall subdued outlook in 2013.

[188] Adcorp Holdings (2014) Adcorp Employment Index

Figure 4-1 Growth of employment in the merSETA sector's cluster: 2000-2012

Source: Quantec (2013)

According to the WPSs for 2014, employment in the sector is at an estimated 641 690.[189] This figure, is down from a figure of 653 800 as reported in the last SSP update. This decline is likely due to the current turbulent state of the economy, particularly manufacturing which has seen lowered investor confidence and decreasing production and sales. The spill-over effects on the manufacturing sector of the 2012 and 2014 mining sector strikes has culminated in negative effects on the sector. While declining employment trends in the local manufacturing sector are in line

[189] Data were weighted in order to compensate for those firms that did not submit WSPs. The weights applied are explained in Appendix 1.

with global trends, where increasing productivity and competitiveness is being achieved though mechanisation and an increase in level of skills these trends do not support national government plans for job creation.[190]

4.2.2 Occupational demand

The occupational composition of the merSETA sector shows Technicians and associate professionals account for 13.2% of total sector employment while professionals (including engineers) make up 5.7% of employment in the sector.

Professionals and technicians are employed across a range of the following technical-skill areas: mechanical engineering, industrial engineering, electrical engineering, electronics engineering, metallurgical engineering and chemical engineering. Professionals also fill non-line function positions such as accounting, financial management, human resources management, information technology and communications, and marketing. Training of professionals generally takes place at universities and universities of technology (qualifications at NQF Level 8 and above), while technician training is done at universities of technology (qualifications at NQF levels 6 and 7). Training for both these groups lies within the HET system.

Managers make up 9.6% and are generally recruited from within the professional ranks of the industry. The artisan occupations that occur most frequently in the merSETA sector include: fitters, fitters and turners, electricians, metal machinists, toolmakers, millwrights, precision instrument makers and repairers, and air conditioning and refrigeration technicians. Training of artisans happens through the TVET system and by means of apprenticeships and learnerships. Artisans form part of the 12.9% of the workforce that are employed as skilled agricultural, forestry, fishery, craft and related trades workers.

Less than one quarter of the workforce is employed as plant and machine operators and assemblers (20.5%). This group includes a wide range of specific occupations that are directly linked to the technology and equipment used in the sector. Training is usually done within the industry, either through on-the-job training or by specialised training providers.

The largest employment category within the merSETA sector is elementary workers (23.5%). While high levels of education are not necessary, industry-specific knowledge is.

[190] Opinions expressed by merSETA chamber representatives at meeting on 3 July 2013 and 29 July 2014.

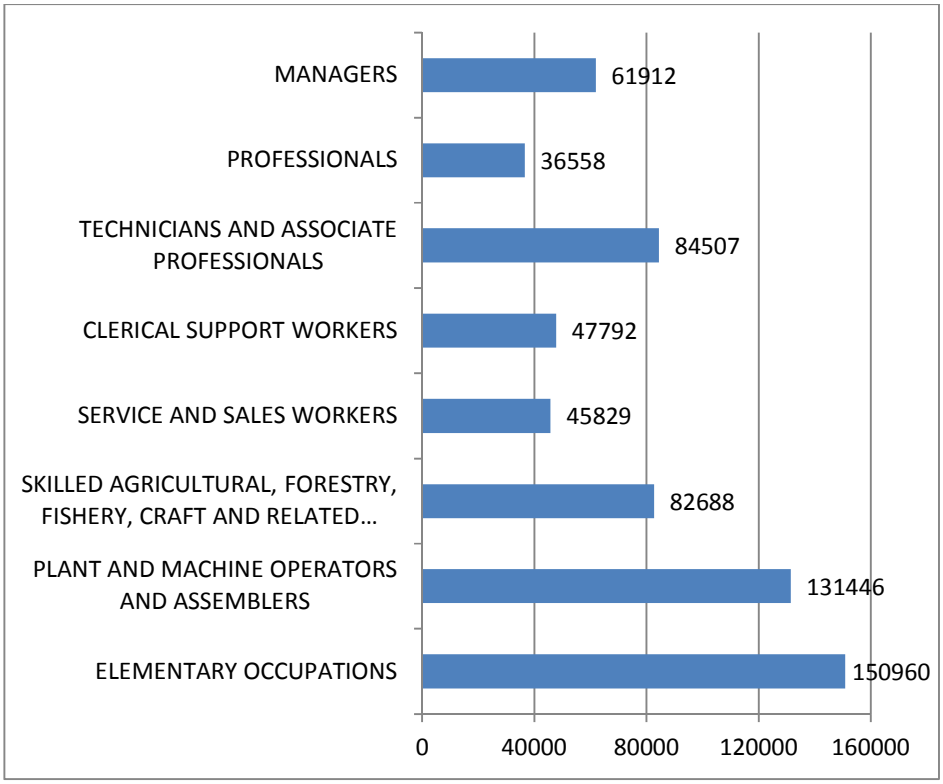


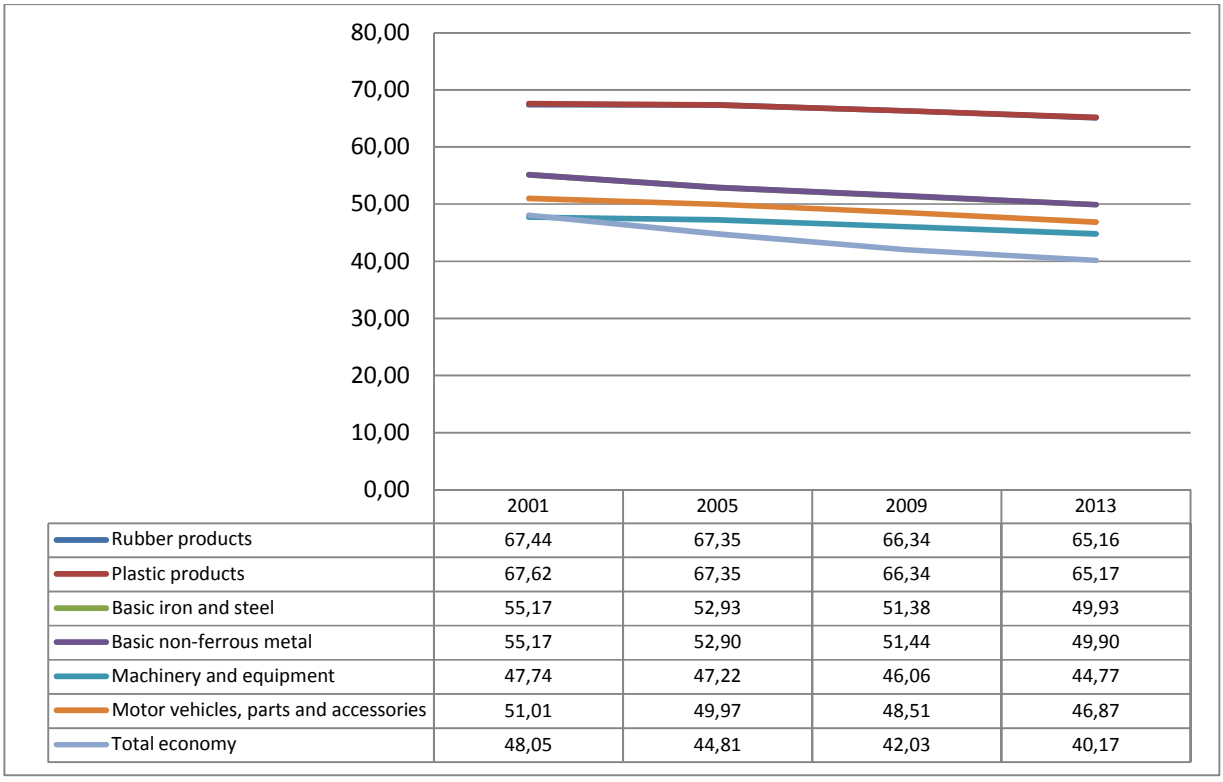
Figure 4-2 merSETA employment by major occupational groups

Source: merSETA WSP data 2014

Analysis of National Accounts data shows that for the South African economy as a whole between 1970 and 2000, the proportion of unskilled and semi-skilled workers dropped from 73.8% to 49.9%, while the proportion of skilled and highly skilled workers increased from 21.3% to 36.4% and from 5.0% to 13.7% respectively.[191] Using the same data source, the three figures below show the proportional employment of the various skills levels of employees within the merSETA sectors cluster every fourth year over the period 2000 to 2013.

Continuing the historical trend evident for the national economy – the proportion of unskilled and semi-skilled workers has been declining for all the sectors in the merSETA sector's cluster over the past 12 years. The decline in employment of this level of worker has however been less rapid than within the overall economy during this period. Since 2004, all of the merSETA sectors have employed a larger proportion of semi-skilled and unskilled workers than the economy as a whole. Of the merSETA sectors, the plastics and rubber products sectors employ the largest proportion of workers with this skill level at 65.2% of total employment for both sectors. The merSETA sector that employs the least amount of semi-skilled and unskilled workers is the machinery and equipment sector at 44.8%.

[191] Quantec (2014) Dataset



	2001	2005	2009	2013
Rubber products	67,44	67,35	66,34	65,16
Plastic products	67,62	67,35	66,34	65,17
Basic iron and steel	55,17	52,93	51,38	49,93
Basic non-ferrous metal	55,17	52,90	51,44	49,90
Machinery and equipment	47,74	47,22	46,06	44,77
Motor vehicles, parts and accessories	51,01	49,97	48,51	46,87
Total economy	48,05	44,81	42,03	40,17

Figure 4-3 Unskilled and semi-skilled labour intensity for the merSETA sector's cluster: 2001-2013

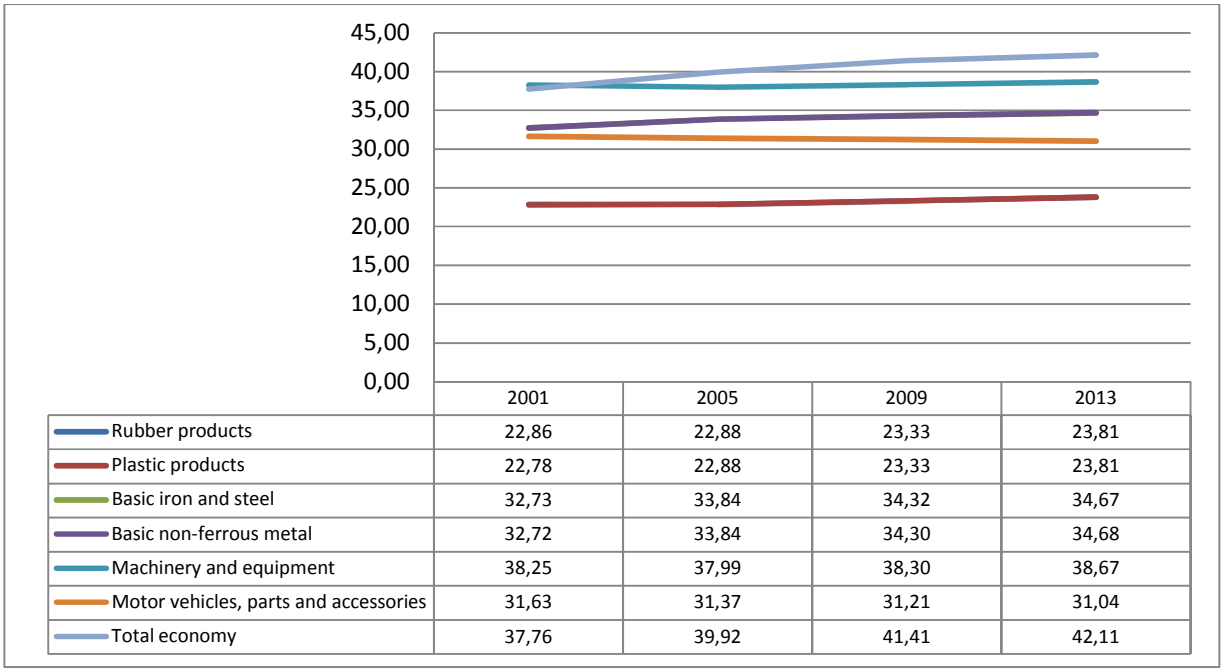
Source: Quantec (2014)

In contrast to the above it seems that there is an increasing demand for skilled and highly skilled workers in the sectors that make up the merSETA sector's cluster. While the demand for skilled workers in the sector is not increasing as rapidly as for the rest of the national economy, demand among the sectors for highly skilled workers is following roughly the same trend for all the merSETA sectors.

merSETA industry representatives[192] support recent Motor Chamber research[193] which highlights the difference between 'qualified' workers and 'competent' workers. This distinction appears to be growing in SA, with qualifications not guaranteeing competence. Thus industry calls of skills scarcity is increasingly related to the scarcity of competent rather than merely qualified workers.

[192] Opinions expressed by merSETA chamber representatives at meeting on 3 July 2013.

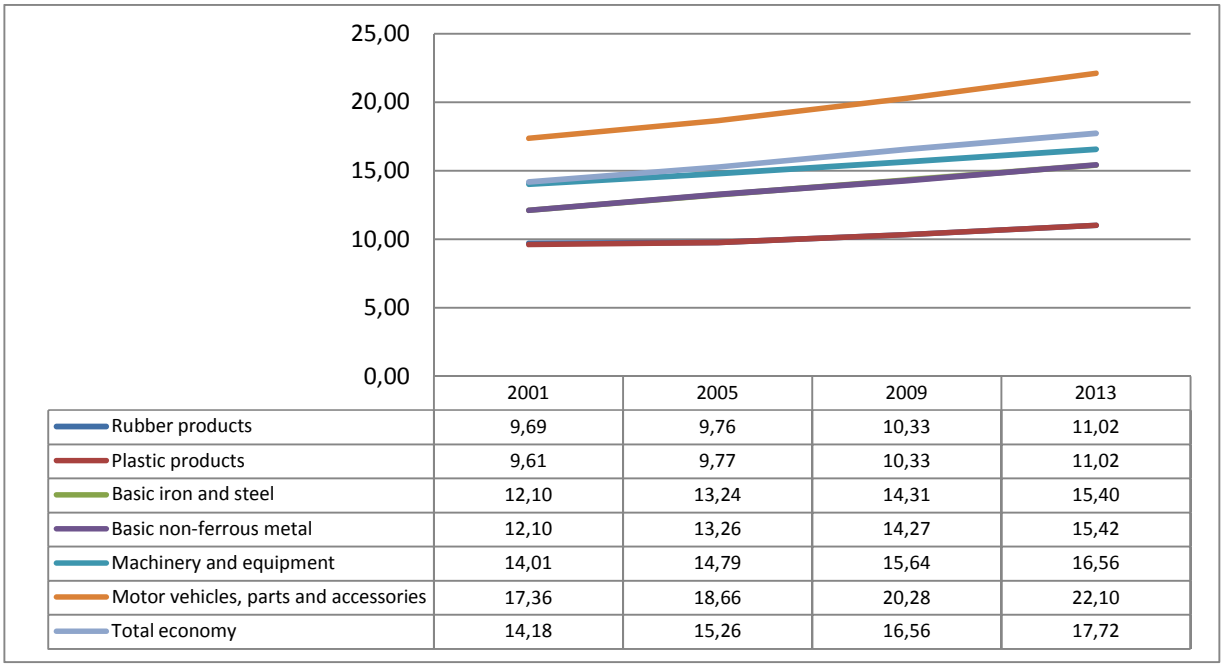
[193] merSETA (2013) Motor Research Project: Employment and Educational and Skills Audit of the merSETA Motor Chamber



	2001	2005	2009	2013
Rubber products	22,86	22,88	23,33	23,81
Plastic products	22,78	22,88	23,33	23,81
Basic iron and steel	32,73	33,84	34,32	34,67
Basic non-ferrous metal	32,72	33,84	34,30	34,68
Machinery and equipment	38,25	37,99	38,30	38,67
Motor vehicles, parts and accessories	31,63	31,37	31,21	31,04
Total economy	37,76	39,92	41,41	42,11

Figure 4-4 Skilled labour intensity for the merSETA sector's cluster: 2001-2013

Source: Quantec (2014)



	2001	2005	2009	2013
Rubber products	9,69	9,76	10,33	11,02
Plastic products	9,61	9,77	10,33	11,02
Basic iron and steel	12,10	13,24	14,31	15,40
Basic non-ferrous metal	12,10	13,26	14,27	15,42
Machinery and equipment	14,01	14,79	15,64	16,56
Motor vehicles, parts and accessories	17,36	18,66	20,28	22,10
Total economy	14,18	15,26	16,56	17,72

Figure 4-5 Highly skilled labour intensity for the merSETA sector's cluster: 2001-2013

Source: Quantec (2014)

4.3 REMUNERATION TRENDS

The annual percentage changes (for the quarterly figures) in total manufacturing employment and the gross earnings of the manufacturing sector is shown below. The changes in gross earnings do not include adaptations for inflation, but from the table it is clear that – despite a sustained contraction of the manufacturing workforce as a whole – the gross earnings of the employees within the sector have increased steadily, at a rate that is above inflation.

	Year and Quarter															
	2010				2011				2012				2013			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Number of Employees	-4.2	-4.1	-3.7	-1.8	-2.3	-1.9	-0.8	-0.5	-0.4	-0.2	0.0	-0.8	-0.6	-0.2	-0.4	0.0
Gross sector earnings	10.3	11.7	7.4	9.6	8.7	7.8	6.5	6.9	7.7	9.0	10.3	7.8	7.1	8.0	8.0	8.2

Table 4-1 Percentage changes in manufacturing employment and gross earnings, 2010-2013*

*Note: percentage changes are given on the annual change and not on the change from the previous quarter.
Source: Stats SA (2014)[194]

Figure 4-6 Average annual remuneration per employee for the merSETA sector's cluster and the total economy: 2000-2012 (2005 constant prices)shows the remuneration per employee for the merSETA sector's cluster from 2000 to 2012. The steadiest gains (since 2002 particularly) in remuneration per employee are for the sale and repair of motor vehicles/fuel stations sector and for the machinery and equipment sector. The basic iron and steel sector saw rapid increases in remuneration per employee between 2009 and 2011, however the figure for 2012 has fallen back somewhat to 2010 levels. The motor vehicles, parts and accessories sector has seen modest growth in average remuneration, however for the plastics sector, the basic non-ferrous metals sector and the rubber products sector there has been little or no growth in remuneration per employee over the period.

[194] Stats SA (2014) Quarterly employment statistics, March 2014, P0277.

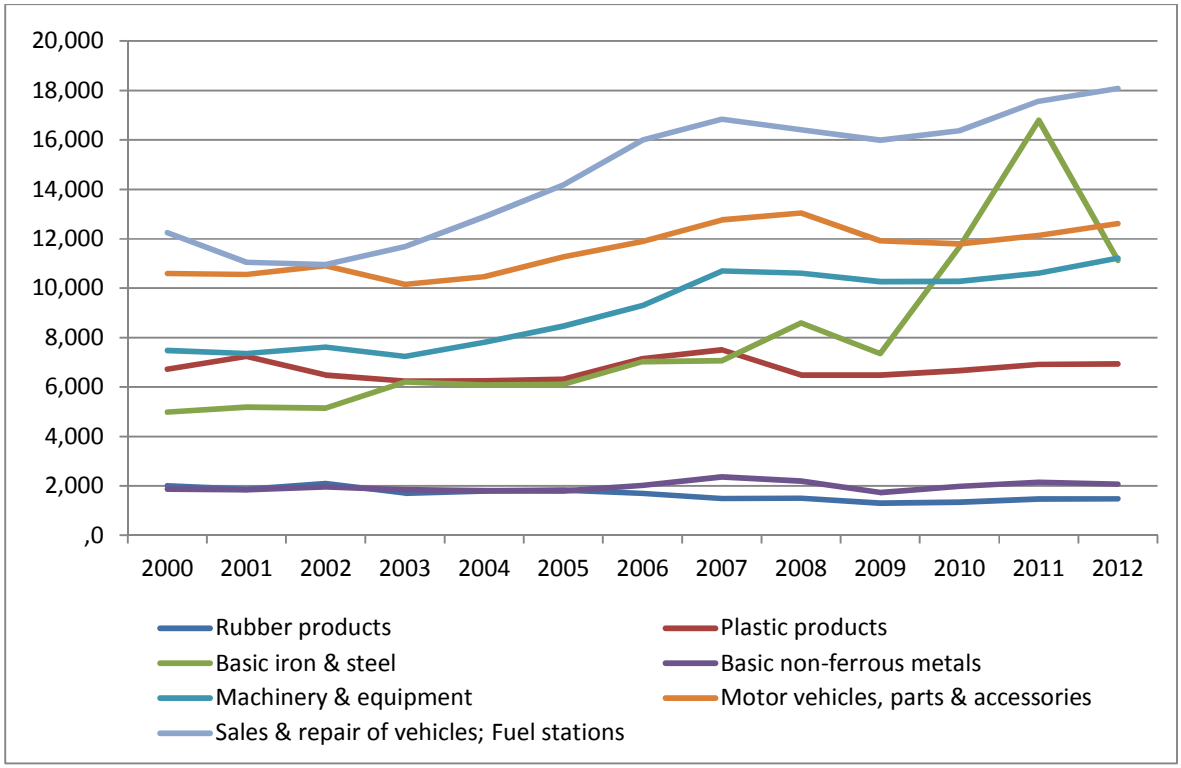


Figure 4-6 Average annual remuneration per employee for the merSETA sector's cluster and the total economy: 2000-2012 (2005 constant prices)

Source: Quantec (2013)

The factors driving the increases in remuneration per employee across certain of the sectors are likely to be a combination of: the economic performance of the sectors; the changing skills profiles, with more highly skilled workers commanding higher wages; and the impact of the highly unionised nature of the workforce and outcomes of collective bargaining.

4.4 FUTURE DEMAND

A demand projection model was developed for the merSETA was last updated in July 2013. The purpose of the projection of future demand is to provide the sector with a broad understanding of the numbers of people that will have to be trained to meet sector needs. The demand projections provide for new demand that will result from economic growth and employment creation – as well as for replacement demand that will occur because of mortality, emigration, and the retirement of employees. The demand projection model projects demand at a detailed occupational level. The baseline figures and assumptions used in the model are explained in the sections below. It is important to note that in this version of the SSP we have not had sufficient inputs on reviewing of the model and will be engaging our new research partners at the DPRU to assist with critically evaluating the model and reviewing how the sectors have performed against the model in year 2015.

4.4.1 Baseline employment

The baseline employment figures used for the demand projection model were derived from the employment information submitted by employers to the merSETA in June 2012. These figures represent employment as on 31 March 2012.[195] As explained in Chapter 2, the WSPs represent the majority of employees in the sector (approximately 75%). By weighting the data estimates of employment in the whole sector were derived. (See Appendix 1 for an explanation of the methodology used.) In the original dataset occupational data were classified according to OFO version 9. In this SSP update the baseline information was converted from OFO version 9 to OFO version 2012.

4.4.2 Assumptions used in the model

Economic growth and employment growth

The employment growth figures used in the model were derived from econometric modelling performed by EcoQuant. The econometric modelling, which is based on the sectoral demarcations found in the National Accounts data, provides, among many other things, forecasts of employment. However, the sectors that are used do not match the merSETA sectors perfectly and some of the sectors were combined to form one sector. Employment growth figures were then used in the merSETA subsectors that more or less match the sectors used in the econometric modelling.

The baseline scenario was obtained using the following process: a macro-econometric simultaneous equation model was employed to project GDP and employment numbers. A separate model broke down the final demand components of household consumption and fixed capital formation into their detailed components. The outputs of these models were then used in an Input-Output model to provide detailed forecasts for sectors of the SA economy.

To obtain high-growth- and low-growth scenarios, the assumption was made that employment in a particular sector would be highly dependent on GVA growth in that sector. The sector growth was assumed to be in turn dependent on overall economic growth.

A low-growth scenario and a high-growth scenario were thus assumed that would be respectively lower and higher than the base case scenario. The standard deviation measured over the last ten years was used to determine the lower and higher values. Total employment sensitivity was statistically measured by means of OLS (ordinary least squares regression) to establish the percentage point increase in total employment that would be associated with a one percentage point change in total GDP growth.

[195] WSP 2013 data could not be used as the basis for these calculations because a number of extensions were granted to companies for the submission of their data and thus the dataset is still incomplete. From 2014 the deadline for WSP submissions will move to April, allowing sufficient time for a credible analysis of the data for use in the next SSP update.

Finally, it was assumed that sectoral employment growth would be closely related to total employment growth in the economy. These sensitivities (or multipliers) were statistically determined by means of regression of sectoral GVA growth rates on employment growth rates for the various sectors. Data for the baseline forecasts were used.

The average economic growth rates and the associated average employment growth rates used to inform the merSETA's labour demand model can be seen below. The final employment growth rates used for each year and for each of the merSETA subsectors are shown in Table 4-3.

	Scenarios					
	Low growth		Baseline		High Growth	
Subsector	GVA growth	Employment growth	GVA growth	Employment growth	GVA growth	Employment growth
Rubber products	0.4%	-3.7%	3.0%	-2.4%	3.6%	0.3%
Plastic products	3.0%	0.9%	3.4%	2.0%	4.9%	3.4%
Basic iron & steel	-0.1%	-0.4%	5.2%	-1.1%	7.6%	0.8%
Basic non-ferrous metals	1.1%	0.3%	4.6%	2.4%	9.1%	3.0%
Machinery & equipment	0.3%	0.1%	1.3%	0.5%	6.6%	2.3%
Motor vehicles, parts & accessories	-0.3%	-0.1%	5.3%	3.2%	9.5%	4.2%
Sales & repair of vehicles; fuel stations	2.1%	-0.5%	3.5%	0.1%	4.2%	0.6%
Total economy	**2.1%**	**0.9%**	**3.8%**	**1.8%**	**5.5%**	**2.4%**

Table 4-2 Average GVA and employment growth figures from the econometric model: 2013 - 2018

Low growth scenario						
Subsector	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Auto	-0.43%	-0.39%	-0.37%	-0.40%	-0.41%	-0.43%
Metals	-0.63%	0.40%	0.82%	0.20%	-0.22%	-0.63%
Motor	-0.43%	-0.39%	-0.37%	-0.40%	-0.41%	-0.43%
New Tyre	-1.45%	-5.23%	-6.75%	-4.47%	-2.97%	-1.45%
Plastics	0.85%	0.94%	0.97%	0.92%	0.88%	0.85%
Unknown	-0.63%	0.40%	0.82%	0.20%	-0.22%	-0.63%
Base growth scenario						
Subsector	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Auto	0.67%	0.85%	0.72%	0.76%	1.05%	1.16%
Metals	-0.01%	0.41%	0.26%	0.34%	0.42%	0.42%
Motor	0.67%	0.85%	0.72%	0.76%	1.05%	1.16%
New Tyre	-2.04%	-2.33%	-2.15%	-2.25%	-2.71%	-2.97%
Plastics	2.06%	1.97%	1.75%	1.89%	2.14%	2.21%
Unknown	-0.01%	0.41%	0.26%	0.34%	0.42%	0.42%
High growth scenario						
Subsector	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Auto	0.54%	1.70%	1.47%	1.61%	1.75%	1.82%

Metals	0.60%	2.36%	1.98%	2.15%	2.32%	2.39%
Motor	0.54%	1.70%	1.47%	1.61%	1.75%	1.82%
New Tyre	0.19%	0.29%	0.25%	0.27%	0.29%	0.30%
Plastics	2.43%	3.72%	3.44%	3.56%	3.68%	3.72%
Unknown	0.60%	2.36%	1.98%	2.15%	2.32%	2.39%

Table 4-3 Employment growth figures used in the merSETA's labour demand projection model: 2013 – 2018

Mortality

The mortality rates used in this model were based on the age distribution of workers in the different occupational groups in the baseline data, the mortality figures reported by Stats SA in their 2007 mortality report, and the 2007 mid-year population estimates. The rates applied to the different occupational groups are indicated in the table below.

Mortality **rate**	**%**
Managers	1.8
Professionals	1.6
Technicians and Associate Professionals	1.5
Clerical Support Workers	1.5
Service and Sales Workers	1.5
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	1.5
Plant and Machine Operators and Assemblers	1.6
Elementary Occupations	1.5

Table 4-4 Mortality rates used in model

Retirement

The retirement rates used in the model can be seen below. These rates are based on the age distribution of employees in the baseline data. The table shows the percentage of people in each occupational group within the sector who fall in the age group of 50 to 64 and who will retire within the next 15 years – that is, if the retirement age is taken as 65. The percentage of people who will retire each year used in the model is also shown.

OFO Group	% that will retire each year
Managers	1.1
Professionals	0.6
Technicians and Associate Professionals	0.6
Clerical Support Workers	0.6
Service and Sales Workers	0.5
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	0.5
Plant and Machine Operators and Assemblers	0.6
Elementary Occupations	0.4

Table 4-5 Retirement rates used in model

Emigration

Stats SA stopped recording emigration figures in 2003 and at this stage there is no single local data source that provides information on the movement of workers out of SA. In the absence of any empirical data, it is estimated that approximately 0.5% of managers and professionals of the sector are lost to the SA labour market as a result of emigration. It was assumed that emigration of the other occupational groups is negligible because of the lack of international demand for lower-level skills and the cost of emigration.

4.4.3 Results of the demand projection model

According to the baseline scenario, in 2014 the merSETA sector will require a total of 3 290 people to fill new positions created in the sector and 14 630 people to meet replacement-demand needs, which results in a total demand for new skills in the sector of 17 920 people. Proportionally, the largest need to satisfy both new and replacement positions is for plant and machine operators and assemblers (810 and 3 190 positions respectively or 4 000 in total). This is followed by a total demand of 3 180 for skilled agricultural, forestry, fishery, craft and related trade workers (including artisans). The replacement demand for managers is relatively high and the fourth largest replacement demand category (at 2 060), however in terms of new demand, demand for technicians and associate professionals higher than the demand for managers. By 2018 replacement demand (15 030) and demand to fill new positions in the sector in that year (4 300) will result in a total demand for the sector of 19 330 people.[196]

[196] Total demand projection figures are lower than the previous estimates. This is mainly due to downward adaptation in new demand figures because of lower than expected sector growth rates, ongoing economic challenges nationally and globally, and lower confidence rates regarding future growth.

The accumulated number of people who would be needed to enter the sector over the six-year period from 2013 to 2018 according to the baseline scenario is 114 190 people. This is the total number of people that will require training in order to take up positions in the various occupations within the merSETA's sectors. The total number of new jobs that will be created in the sector (25 550) will, however, be substantially fewer than the demand for new people to fill existing positions (88 640). Of the overall total, 11 710 will be entering positions as technicians and associate professionals and 7 510 will be working as professionals. A total of 20 310 will be entering the sector as skilled craft and related trade workers (including artisans). As professionals, technicians and artisans are generally recruited for training from outside of the existing workforce, with artisans and engineers additionally taking a number of years to acquire the relevant qualifications, demand for these groups is of particular importance for the merSETA's long-term skills planning.

At a figure of 25 550, the total employment creation in the sector (i.e. new positions) over the six-year period according to the baseline scenario is only around 7% of the employment-creation target set for the general manufacturing industry by the New Growth Plan (350 000 new jobs by 2020).

In the negative growth scenario the total number of positions that need to be filled in the merSETA sector in 2013 is 15 300 and by 2018 this figure actually drops to 10 820. Total replacement and new demand over the six-year period amounts to 82 430 people: however, the total number of new jobs created in the sector according to the model will be negative. In reality this means a contraction of employment in the sector as a whole which is likely to be the result of companies not filling vacancies that arise from natural employee attrition.[197] Total demand for technicians and associate professionals to fill new- and replacement-demand positions over the period will still be 8 700 and for skilled craft and related trade workers will be 14 510, highlighting that even under weak economic and employment growth conditions the country's demand for technician and artisan skills will remain strong. When considering the current economic climate it would seem that the trends are leaning more towards the negative growth scenario with bleak prospects for real positive growth.

[197] Closer inspection of the data behind the model shows that this contraction is likely to be most severe in the Auto, Metals and Motor subsectors, while the Plastics sector is likely to continue to experience positive employee growth over the entire period.

New Positions to be Created in Period						
Occupational Group	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Managers	400	320	370	470	500	410
Professionals	220	170	200	260	280	230
Technicians and Associate Professionals	400	310	360	460	490	420
Clerical Support Workers	340	270	310	400	420	340
Service and Sales Workers	200	160	180	240	260	190
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	750	580	670	860	910	780
Plant and Machine Operators and Assemblers	1 010	810	940	1 170	1 230	1 060
Elementary Occupations	850	670	770	990	1 050	870
Total	**4 170**	**3 290**	**3 800**	**4 850**	**5 140**	**4 300**
Replacement Demand						
Occupational Group	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Managers	2 050	2 060	2 080	2 090	2 100	2 120
Professionals	1 010	1 020	1 020	1 030	1 030	1 040
Technicians and Associate Professionals	1 520	1 530	1 540	1 550	1 560	1 570
Clerical Support Workers	1 120	1 130	1 130	1 140	1 150	1 160
Service and Sales Workers	590	600	600	610	610	620
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	2 590	2 600	2 620	2 630	2 650	2 670
Plant and Machine Operators and Assemblers	3 170	3 190	3 210	3 230	3 260	3 280
Elementary Occupations	2 490	2 500	2 520	2 530	2 550	2 570
Total	**14 540**	**14 630**	**14 720**	**14 810**	**14 910**	**15 030**
Total Positions That Need to be Filled						
Occupational Group	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Managers	2 450	2 380	2 450	2 560	2 600	2 530
Professionals	1 230	1 190	1 220	1 290	1 310	1 270
Technicians and Associate Professionals	1 920	1 840	1 900	2 010	2 050	1 990
Clerical Support Workers	1 460	1 400	1 440	1 540	1 570	1 500
Service and Sales Workers	790	760	780	850	870	810
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	3 340	3 180	3 290	3 490	3 560	3 450
Plant and Machine Operators and Assemblers	4 180	4 000	4 150	4 400	4 490	4 340
Elementary Occupations	3 340	3 170	3 290	3 520	3 600	3 440
Total	**18 710**	**17 920**	**18 520**	**19 660**	**20 050**	**19 330**

Table 4-6 Demand projections 2013 to 2018: baseline scenario

Note: Figures for individual groups have been rounded to the nearest 10.

New Positions to be Created in Period						
Occupational Group	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Managers	80	230	20	-130	-270	-340
Professionals	40	130	0	-90	-190	-230
Technicians and Associate Professionals	110	280	30	-140	-300	-380
Clerical Support Workers	60	170	0	-110	-230	-280
Service and Sales Workers	-20	30	-30	-80	-120	-140
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	210	560	50	-300	-650	-810
Plant and Machine Operators and Assemblers	180	490	60	-240	-550	-690
Elementary Occupations	210	530	60	-260	-580	-730
Total	**870**	**2420**	**190**	**-1350**	**-2890**	**-3600**
Replacement Demand						
Occupational Group	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Managers	2 030	2 040	2 040	2 050	2 040	2 030
Professionals	1 000	1 000	1 010	1 010	1 000	1 000
Technicians and Associate Professionals	1 510	1 520	1 520	1 520	1 520	1 510
Clerical Support Workers	1 110	1 110	1 120	1 120	1 110	1 110
Service and Sales Workers	590	590	590	590	590	580
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	2 570	2 570	2 580	2 580	2 580	2 570
Plant and Machine Operators and Assemblers	3 150	3 150	3 160	3 160	3 160	3 150
Elementary Occupations	2 470	2 470	2 480	2 480	2 480	2 470
Total	**14 430**	**14 450**	**14 500**	**14 510**	**14 480**	**14 420**
Total Positions That Need to be Filled						
Occupational Group	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Managers	2 110	2 270	2 060	1 920	1 770	1 690
Professionals	1 040	1 130	1 010	920	810	770
Technicians and Associate Professionals	1 620	1 800	1 550	1 380	1 220	1 130
Clerical Support Workers	1 170	1 280	1 120	1 010	880	830
Service and Sales Workers	570	620	560	510	470	440
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	2 780	3 130	2 630	2 280	1 930	1 760
Plant and Machine Operators and Assemblers	3 330	3 640	3 220	2 920	2 610	2 460
Elementary Occupations	2 680	3 000	2 540	2 220	1 900	1 740
Total	**15 300**	**16 870**	**14 690**	**13 160**	**11 590**	**10 820**

Table 4-7 Demand projections 2013 to 2018: negative scenario

Note: Figures for individual groups have been rounded to the nearest 10.

New Positions to be Created in Period						
Occupational Group	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Managers	1 380	1 210	1 330	1 460	1 540	1 620
Professionals	820	710	790	870	910	960
Technicians and Associate Professionals	1 470	1 290	1 420	1 560	1 650	1 730
Clerical Support Workers	1 130	990	1 090	1 200	1 270	1 330
Service and Sales Workers	550	490	540	590	620	660
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	2 820	2 460	2 710	2 990	3 150	3 320
Plant and Machine Operators and Assemblers	3 510	3 120	3 430	3 750	3 950	4 150
Elementary Occupations	2 880	2 530	2 790	3 070	3 230	3 400
Total	**14 560**	**12 800**	**14 100**	**15 490**	**16 320**	**17 170**
Replacement Demand						
Occupational Group	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Managers	2 060	2 100	2 140	2 190	2 240	2 290
Professionals	1 010	1 040	1 060	1 080	1 100	1 130
Technicians and Associate Professionals	1 530	1 570	1 600	1 630	1 670	1 700
Clerical Support Workers	1 120	1 150	1 170	1 190	1 220	1 250
Service and Sales Workers	590	610	620	630	640	660
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	2 600	2 660	2 710	2 760	2 820	2 890
Plant and Machine Operators and Assemblers	3 190	3 260	3 330	3 400	3 480	3 560
Elementary Occupations	2 500	2 550	2 600	2 660	2 720	2 780
Total	**14 600**	**14 940**	**15 230**	**15 540**	**15 890**	**16 260**
Total Positions That Need to be Filled						
Occupational Group	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**
Managers	3 440	3 310	3 470	3 650	3 780	3 910
Professionals	1 830	1 750	1 850	1 950	2 010	2 090
Technicians and Associate Professionals	3 000	2 860	3 020	3 190	3 320	3 430
Clerical Support Workers	2 250	2 140	2 260	2 390	2 490	2 580
Service and Sales Workers	1 140	1 100	1 160	1 220	1 260	1 320
Skilled Agricultural, Forestry, Fishery, Craft and related Trades Workers	5 420	5 120	5 420	5 750	5 970	6 210
Plant and Machine Operators and Assemblers	6 700	6 380	6 760	7 150	7 430	7 710
Elementary Occupations	5 380	5 080	5 390	5 730	5 950	6 180
Total	**29 160**	**27 740**	**29 330**	**31 030**	**32 210**	**33 430**

Table 4-8 Demand projections 2013 to 2018: positive scenario

Note: Figures for individual groups have been rounded to the nearest 10.

4.4.4 Limitations of the model

In previous versions of the merSETA SSP it was noted that the WSP data that were used as baseline data for this model needed improvement. The most important area for improvement was the correction of the SIC codes of companies so that they could be allocated to the correct chambers.

Another area that needs attention is the inclusion of non-levy-paying companies in the baseline figures. The limitations that these data deficiencies place on the demand projections are acknowledged. Future iterations of the demand projections will hopefully be based on improved versions of the baseline dataset and will, therefore, also provide more accurate projections.

Another limitation of the current model is the underlying assumption that the occupational structure of the sector will remain the same over the forecast period. However, all the merSETA's sectors have seen the proportion of unskilled and semi-skilled workers dropping, while the proportion of skilled and highly skilled workers has increased. This increasing shift towards more highly skilled workers is not considered in the calculations, because of the absence of information on exactly how this shift affects the specific occupations in the sector. The result is a possible under-calculation of the future demand for skilled and highly skilled workers, especially if there is any acceleration in the trend.

People leaving the sector to find employment in other sectors of the economy or who stop working altogether (to become homemakers, for example) is an important factor contributing to replacement demand. However, there is no statistical information available about the magnitude of this form of skills attrition in the sector. In the absence of any reliable data this figure was assumed to be zero. It is, however, acknowledged as a limitation of the model, which inevitably renders very conservative estimates of replacement demand.

4.5 FACTORS IMPACTING ON THE FUTURE DEMAND FOR SKILLS IN THE SECTOR

While some of these issues have already been mentioned in various sections of this SPP, they are worth highlighting again here for their role in impacting on the future demand for skills in the merSETA sector.

4.5.1 Economic recovery and future growth rates

The recent global and local economic recessions had, and continues to have, a profound effect on the local manufacturing sector as a whole, including all three of the major industries included in the merSETA sector (as discussed in Section 3.4.1). The result of economic contraction was severe job losses across the sector. Economic recovery has been slow, with continued challenges facing the US and European financial systems: The IMF has revised downward the projected US economic growth for 2013 to 1.7% due to higher taxes and government

spending cuts.[198] In the Euro Zone, policy makers are grappling with ways for countries to meet deficit targets, but at the same time escape a second consecutive year of recession and the social unrest associated with record high levels of unemployment.[199] These markets represent SA's current major export markets, and the negative effect of limited or no growth in these markets on the merSETA's sectors, is currently only being counterbalanced in part by the growth of, and increased exports to, other African economies.[200] These factors will influence the sector's requirements for new skills (as opposed to skills for replacement demand and to fill vacancies that result from skills scarcity).

4.5.2 Government policies aimed at sector support

Government currently has a host of policies and strategies aimed at supporting economic development and job creation within the national economy. While the SIPs are aimed at supporting the national economy generally and in the process increasing local employment, many of the other policies and strategies are directed in part or in full at supporting the manufacturing sector, including all the merSETA's subsectors (See Section 3.5). Central to this cluster of mutually supportive policies is IPAP. IPAP aims to address the underlying structural problems in the SA economy (i.e. those not related directly to the recent and ongoing economic recession) and in the process to create 5 million new jobs over the ten-year period from 2010 to 2020. While the exact number anticipated for the iron, steel and non-ferrous metals subsector and the CETEFM subsector are not indicated, the policy indicates the total number of new jobs in the automotive sector as 160 000 and in the plastics sector as 22 754 over the period.

Other initiatives that indicate an intention to create jobs within the broader manufacturing sector include the New Jobs Fund that aims to create 150 000 jobs overall, some of which will be linked to infrastructure development, and the IDC's intention to create 40 000 to 50 000 job opportunities linked to support of manufacturing and infrastructure development.

If these initiatives succeed in turning around current negative employment trends and in growing the employment across the merSETA's sectors and subsectors the implication for skills demand will be enormous.

[198] Reuters.com (2013) IMF draft cuts 2013 US growth forecast: report, 24 March 2013, http://www.reuters.com/article/2013/03/24/us-imf-us-forecasts-idUSBRE92N0BT20130324, Accessed 2 July 2013.

[199] Reurters.com (2013) EU shifts policy focus in quest for growth, 29 May 2013, http://www.reuters.com/article/2013/05/29/us-eu-economy-idUSBRE94S0OM20130529, Accessed 2 July 2013.

[200] Mail&Guardian (2013) Gordhan warns of Africa's vulnerability despite economic growth, 10 May 2013, http://mg.co.za/article/2013-05-10-gordhan-warns-of-africas-vulnerability-despite-economic-growth, Accessed 2 July 2013.

4.5.3 Shift towards greater proportion of skilled workers

As mentioned earlier in this chapter, the proportion of unskilled and semi-skilled workers in the sector has dropped, while the proportion of skilled and highly skilled workers has increased. These shifts are driven by global advances in manufacturing technology and span design- to production technologies. As employees will have to engage with new and increasingly complex technologies on an ongoing basis within the workplace, the baseline qualifications required across the board are increasing. The majority of OEMs, for example, now only accept people who have passed Grade 12 maths as operators on the shop floor.

CAD, CAM and CNC are some of the technologies that are driving improved quality and efficiency in the manufacturing sector. CNC in particular is having a major impact on sheet metal fabricators by dramatically improving quality and productivity. Engineering qualifications now generally include training in these technologies, so that new graduates entering the system are equipped with these skills. However, for the existing workforce, skills gaps in respect of these areas must be filled by additional training.[201]

In addition, according to the Department of Science and Technology, Director General Dr Phil Mjwara, South Africa has no alternative but to develop its advanced manufacturing capabilities. Poor labour productivity relative to other export-orientated countries hampers South Africa's global competitiveness. Advanced manufacturing, including the production of advanced materials and the use of advanced manufacturing techniques, can create alternative employment opportunities through the creation and growth of new industries and markets.

4.5.4 Variations in regional demand

merSETA's recently completed first set of Regional Sector Skills Plans bring to the fore the fact that skills demand and skills scarcity are not uniform across the country, but are impacted by a number of factors such as:[202]

- The sectoral and intra-sectoral shape and size of the regional economy;
- national, provincial and municipal policies, strategies and initiatives in the region aimed at supporting and growing local industry;
- the number, quality and scope of relevant regional training facilities and training providers;
- the regional 'culture' of support for training and graduate development; and
- the relative attractiveness of the region in order to be able to attract and retain the necessary skills.

[201] merSETA (2010) The impact of the 2008/9 global and local economic crisis on merSETA firms: A focus on employment and skills.

[202] merSETA (2013) Regional Sector Skills Plans.

merSETA's Regional Sector Skills Plans thus unpack the regional specificity of the merSETA subsectors, with the objectives to identify and map key features, trends, forecasts and legislative initiatives at the regional level regarding skills demand and skills development.

In respect of factors impacting on future skills demand, the following issues emerged:[203]

- The establishment of the first SEZ in Saldanha Bay in the Western Cape, which will be mainly focused on the oil and gas industry, is expected to yield significant local job creation and economic growth potential if the relevant skills can be sourced locally.
- The establishment of wind farms as part of an emerging renewable energy industry in the Eastern Cape will require a pool of locally based artisans as part of the installation and maintenance processes.

4.5.5 Mobility of skills within the labour market

Demand for qualified engineers and artisans arise not only from the merSETA's sectors, but also from the wider manufacturing sector and other sectors in the national economy. The merSETA sectors thus compete for a limited supply of these technical skills. Furthermore, the high levels of demand have resulted in wage premiums and experienced engineers and artisans can easily move between sectors in search of higher wages and better working conditions. As such, a sector needs to be attractive in order to draw and retain highly skilled people within the context of limited supply. The high levels of economic uncertainty that have prevailed in particularly the automotive and metals sectors over the last few years have resulted in the migration of skilled people out of these sectors and into more stable sectors of the economy.[204]

Another dimension of skills mobility is the issue of the regional movement of qualified and experienced workers. This is also highlighted by merSETA's Regional Sector Skills Plans.[205] Some provinces lack the institutions and facilities to provide certain types of training. This not only adds to the cost of training in these areas, but limits the local availability of these skills. In other instances, provinces and regions within provinces struggle to recruit and/or retain skilled workers because of social factors that include among others, access to facilities such as shops, schools, hospitals and entertainment. This factor affects particularly the more rural areas of the country. The mobility of skills within the national labour market is however a benefit for companies offering employment opportunities for which labour is prepared to relocate. Furthermore, while Gauteng-based companies benefit substantially from provincial in-migration, it is not the only beneficiary: the recent tracer study on graduates of merSETA's Accelerated Artisan Training Programme (AATP) shows that Limpopo Province was the most popular

[203] merSETA (2013) Regional Sector Skills Plan Synthesis Report, October 2013, Prepared by Underhill Corporate Solutions (UCS).

[204] merSETA (2010) The impact of the 2008/9 global economic crisis on firms merSETA: A focus on employment and skills, EE Research Focus Pty (Ltd).

[205] merSETA (2013) Regional Sector Skills Plans

destination of newly qualified artisans from Gauteng, KZN and Mpumalanga who were no longer with their original employer.[206]

As labour markets are becoming more and more integrated, local markets are increasingly affected by economic and labour market conditions in other parts of the world. The SA labour market is affected by migration of highly skilled people to overseas destinations such as Dubai and Quatar, places where qualified SA engineers and artisans are in high demand and are able to easily move to in order to work on high-paying and exciting projects. Similarly, the SA labour market is affected by demand emanating from other African – and especially other Southern African Development Community (SADC) – countries. Specific skills needed for development projects are attracted from our labour market and as SA companies deploy their staff in neighboring countries, the demand in SA is effectively increased. Economic growth in countries in close proximity to SA, such as Mozambique, is starting to have an effect on the local demand for skilled labour. This may very well continue into the future. Through these trends, skills are lost to the local, regional or national economy on either a temporary or a permanent basis.[207]

4.5.6 The rate of replacement demand

While replacement demand is assumed to be proportionally consistent into the future in calculations of future demand for labour, this may not be the case. While the global economic slump appears to have slowed demand somewhat, SA artisans and people from other highly skilled occupations continue to be actively recruited by countries such as Australia. A reduction in the levels of emigration of technically qualified people will reduce the replacement-demand requirements arising from this factor, while increasing emigration will increase the replacement demand.

Mortality is another factor that impacts on the rate of replacement demand in the sector, and mortality among working-age South Africans is highly affected by HIV and AIDS. National- and workplace policies and interventions around HIV and AIDS education, the availability of anti-retroviral medication, and access to health care and employee wellness programmes will all impact on the rate of AIDS-related deaths into the future.

4.5.7 The quality of skills supply

A major factor impacting on the demand for people with specific qualifications is the perceived quality of those qualifications. While this factor is impacting on many local qualifications across all levels of the NQF, of particular concern to the merSETA sector is the perceived poor and variable quality of newly qualified technicians[208] and

[206] merSETA (2012) AATP Post Trade Test Tracer Study, prepared by Underhill Corporate Solutions (UCS) for the merSETA, Final Draft 20 September 2012.

[207] Dr. Oswald Franks (2012), ECSA, telephonic interview, 12 July 2012.

[208] DuToit R, Roodt J (2009) Egineers in a Developing Country: The Profession and Education of Engineering Professionals in South Africa, HSRC Press, Pretoria.

artisans.[209] Together with the issue of post-qualification work experience, the quality of qualifications underlies industry concerns regarding the increasing availability of 'qualified' workers, but the continuing scarcity of 'competent' workers.[210]

4.5.8 Transformation imperatives

Legislation aimed at the transformation of the national economy demands increasing proportions of PDIs in the more highly skilled occupational groups – managers, professionals, and technicians and artisans in particular. Employment at these levels requires people with relevant qualifications as a starting point. This means that the rate of transformation is dependent on sufficient numbers of black graduates emerging with technical degrees, learnerships and apprenticeships and therefore on the supply of these skills. Furthermore, many positions (including management) demand not only a relevant qualification but also many years of work experience in the sector in order to 'qualify' the individual. At present the demand for qualified and experienced black South Africans in the sector considerably outstrips the supply available and places a premium on the cost of their employment.[211]

merSETA recognises the continued and growing importance of transformation imperatives and supports initiatives that promote change in this regard. As part of its drive for improved accuracy and greater detail of sectoral labour market data collection processes, it is hoped that the nuances of labour demand in respect of transformation will be better understood into the future, and that this will inform more targeted interventions.

4.5.9 Support for government's rural and PWD development agendas

There are a number of government policies and strategies that should affect the way in which merSETA firms recruit and train people for employment within the sector. These all form part of the basket of policies aimed at furthering the national development agenda. Examples include:

- The Integrated Rural Development Strategy (2000) provides the overarching policy for rural development with more recent policies and strategies all requiring organisations to direct a specific focus on improving the opportunities and well-being of people living in rural areas, and particularly the rural poor.[212] The merSETA has determined that its motor servicing and sales subsector has the highest potential in terms of rural reach. In this light it is important that all provinces are supported in developing local training and

[209] Sabinetlaw (2011) National Artisan Moderation Body Launched, 2 December 2010, http://www.sabinetlaw.co.za/education/articles/national-artisan-moderation-body-launched, Accessed 22 September 2011.

[210] Opinions expressed by merSETA chamber representatives at meeting on 3 July 2013.

[211] merSETA (2010) The impact of the 2008/9 global economic crisis on firms merSETA: A focus on employment and skills, EE Research Focus Pty (Ltd).

[212] Republic of South Africa (2000) The Integrated Sustainable Rural Development Strategy, 17 November 2000.

trade test centres for motor servicing and sales skills.[213] Furthermore, linking training for this subsector with entrepreneurship training so that people with relevant skills can create their own employment in rural areas should thus be a merSETA focus into the future.[214]

- Employment of people with disabilities (PWD). The Employment Equity Act (No.55 of 1998) sets a target of 2% of employment within qualifying companies (i.e. companies with 50 or more employees) for people living with disabilities. Efforts to achieve this target will impact on firms' recruitment for training and employment of people living with disabilities, and on their strategies to retain employees who become disabled while they are employed within the sector.[215]

4.6 CONCLUSIONS

This chapter has considered the demand for labour within the merSETA sector from different perspectives. Looking at total employment, WSP data for the year 2011/12 indicate a figure of 653 800. Average year-on-year changes in employment for the sectors that make up the merSETA sector's cluster have been variable, but largely negative, since 2009. Since the recession of 2008/9, only the rubber products sector has shown employment increases, however at levels insufficient to make up for a decade of employment losses prior to this. While this trend correlates with data for the manufacturing sector as a whole, which show a long-term reduction in the sector's overall contribution to national formal employment, it stands in stark contrast to national government plans for large-scale job creation in the sector.

From an occupational perspective, the category technicians and associate professionals represents 9.9% of total employment in the merSETA sector, while professionals (including engineers) constitute 5.7%. Artisans, who form part of the group of skilled agricultural, forestry, fishery, craft and related trades workers, make up 19.4% of sector employment. Semi-skilled plant and machinery operators and assemblers (22.8%) and unskilled elementary workers (19.6%) together make up a still significant 42.4% of sector employment. An analysis of the proportional demand for workers according to their skills level reveals long-term trends of declining demand for the unskilled and semi-skilled worker category and increasing demand for highly skilled workers – changes that are being driven by technological advancements and global competitiveness pressures. These same factors, in addition to the highly unionised nature of the merSETA workforce, are furthermore driving increases in real labour remuneration per employee in the majority of the merSETA's sectors.

[213] The merSETA Regional Sector Skills Plans (merSETA 2013) have highlighted that despite having a significant proportion of the national vehicle park, Limpopo does not have a trade test centre for the motor trades, with apprentices having to travel to Gauteng.

[214] merSETA (2012) Motor Research Project: Employment and Education and Skills Audit of the merSETA Motor Chamber.

[215] merSETA (2013) Final draft research report for MERSETA OEM chamber: Empowering people with disabilities project

Calculating future demand for labour in the sector remains challenging in light of the current economic uncertainties. However, with this in mind the merSETA has updated its labour demand projection model, which projects the demand for labour in each of the major occupations that are found in the sector, given certain assumptions. The main purpose of these projections is to provide a broad indication of the numbers of people who need to be recruited into the sector and who would need to be trained for employment in the sector. Together with the sectoral employment targets set by government through its economic development policies, these figures provide a basis for skills planning by the merSETA.

The projections emerging from this latest update of the labour demand projection model, have adjusted downward the figures for new skills demand over the medium-term future, compared to last year. According to the baseline scenario, a total of 114 190 people will be required by the sector over the period 2013 to 2018 to fill new positions and positions that become vacant as a result of retirement, death or emigration of current employees. If the negative-growth scenario were to result, overall demand would only be 82 430 over the same period, while under the positive growth scenario total demand would be 182 900 people. New job creation by the sector – a key consideration of both IPAP and the New Growth Plan – varies considerably under the different scenarios, from a contraction of overall sector employment in the negative scenario to 90 440 for the positive scenario, with the figure for the baseline scenario being 25 550. Of particular importance for the merSETA in respect of supporting the development of sufficient numbers of technicians and artisans for the sector, total demand for the occupational group technicians and associate professional is 11 710 over the period under the baseline scenario, rising to 18 820 under the positive scenario, while for skilled agricultural, forestry, fishery, craft and related trades workers total demand over the period is 20 310 under the baseline scenario, rising to 33 890 under the positive scenario.

Finally, a range of factors has a direct impact on the future demand for skills in the sector. These factors include: the rate of economic recovery and future growth; the various government policies aimed at sector support and their relative success; the global and national shifts towards greater proportions of skilled workers in the sector; variations in the regional demand for particular skills; the national and international mobility of (particularly scarce) skills within the labour market; the rate of replacement demand; the quality of skills supply; and national transformation imperatives. Together, these factors will directly affect which of the various growth scenarios developed by the merSETA sector is more likely to arise in reality. The downward revision of new demand evident in this SSP compared with last year's projections is a direct result of the negative impact of lower than expected sectoral economic growth rates based on continuing global economic challenges.

5 THE SUPPLY OF SKILLS TO THE SECTOR

5.1 INTRODUCTION

This chapter firstly considers the supply of skills to the merSETA sector. As with the demand for skills, supply is viewed from different perspectives. At the most basic level, it is necessary to reflect again on the current stock of skills available to the sector – a group that includes those that are currently employed, as well as those that are unemployed but available to work for the sector. In light of the employment downsizing that accompanied the recent recession in all the merSETA sectors, and that continues to affect some companies, forms a pool of immediately available skills.

Secondly, the chapter looks at the flow of new skills into the sector. The education and training of professionals, artisans and technicians is particularly important to the merSETA sector. The training of these occupational groups through degree and diploma programmes, learnerships and apprenticeships takes several years and often takes place before learners enter into permanent employment within the sector. This makes it necessary for the merSETA and its companies to have a long-term view of skills generation and to use bursaries and other incentive schemes to ensure a sufficient flow of these critical skills into the sector. The benefit of incentivised training is that graduates with scarce skills are channeled into the sector. The merSETA sector is in competition with all other sectors that demand these skills and may be disadvantaged if new graduates are not bound to the sector through bursaries and other incentive schemes.

The third section of the chapter considers the development of skills among those that are already employed within the merSETA sector. The occupational profile of these workers has been outlined in previous chapters. Training for the vast majority of the sector's workers – those that fall into the categories of skilled agricultural, forestry, fishery, craft and related trade workers and plant and machinery operators and assemblers, as well as those that fall into the groups clerical and administration support workers and service and sales workers – is generally the responsibility of employers. Furthermore, as managers and supervisors are generally drawn from within the sector, training and development at this level also takes place within the workplace. For this reason, workplace based training is needed in the areas ranging from Adult Basic Education and Training (ABET) and Foundational Learning Competence (FLC), to management and soft skills, product knowledge, continuous professional development (CPD) and experiential learning amongst other things. Training related to health and safety and changes in technology is critical for all levels of employees.

The fourth section provides an overview of the merSETA's interventions to support artisan development in the sector. The section provides some details of: merSETA's Accelerated Artisan Training Programme (AATP); the

merSETA as a member of the Artisan and Technologist Development Technical Task Team (ATD-TTT); the merSETA pilot of the Apprenticeship Dual System of training; merSETA research in support of artisan development; and the implementation of Recognition of Prior Learning (RPL), particularly in relation to artisan training.

This is followed by a consideration of merSETA's support for other aspects of government's national social and economic development agenda. Discussed in this fifth section of the chapter is: the MOU between the merSETA and the dti in support of IPAP; the placement of unemployed graduates in the labour market; merSETA support of the Special Infrastructure Projects (SIPs); the conversion of merSETA qualifications for registration with the Quality Council for Trades and Occupations (QCTO); the implementation of merSETA partnerships with the TVET college sector; and the merSETA's engagement with other national policy directives.

Finally, this chapter considers factors that influence the supply of skills to the sector, various challenges with the supply of technical skills to the sector and the various initiatives to improve occupation development and quality assurance. Importantly, a substantial proportion of merSETA research is focused on assessing the impact of its programmes, and on making relevant adjustments to improve the impact of these programmes into the future. Impact-related findings from recently commissioned research are discussed in the relevant sections of this chapter.

5.2 CURRENT SUPPLY

5.2.1 Current employment

The stock of skills available to the metals, automotive and plastics manufacturing sectors includes the group of people that are currently employed in addition to those that are currently unemployed but that are available for work. The preceding chapters of this SSP have outlined the skills levels of the people currently employed within the sector, linked to the occupational profile. Notably, the sector has relatively large proportions of employees that are technicians and associate professionals (13.2%), professionals (5.7%) and managers (9.6%).

5.2.2 Unemployment

People who are currently unemployed but were previously employed in the sector must also be considered as part of the current supply of skills. The sector has shed many jobs since 2008 as a result of the economic recession, as well as some other recent factors that have served to constrain growth and profitability. As indicated in Chapter 3, the metal sector lost a substantial 75 000 jobs; the plastics sector around 2 000 jobs; while the automotive sector lost around 32 700 in total (5 000 at the automotive assemblers; 18 000 at components manufacturers; 9 000 at motor retailers; and 700 at new tyre manufacturers). In addition, labour unions have provided evidence that

retrenchments in the sector are ongoing.[216] This group of recently retrenched workers forms the pool of immediately available skills that can be drawn from to meet both new- and replacement demand.

No information is currently available on the current employment status of these workers specifically. It is however possible to analyse the Quarterly Labour Force Surveys (QLFS) data. Upon comparison of the Q1 year on year QLFS data from March 2009 through March 2014, the manufacturing sector has recorded shedding jobs at an average of 5.45%. Further analyses on this data showed that since the 2008 economic recession, the manufacturing sector has been showing a steady increase in its recovery and shows a positive average employment absorption rate of 2.25%[217].

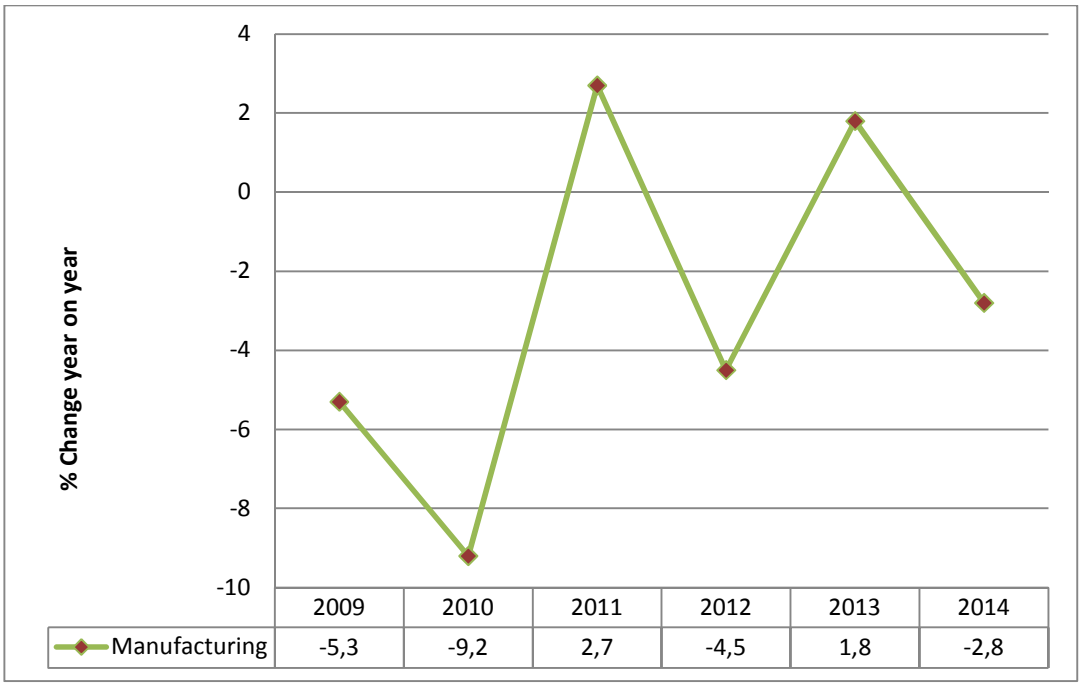


Figure 5-1 Employment within the Manufacturing Sector (Year on Year changes)

Source: QLFS, March 2009-2014

There is still some uncertainty with regards to the employment status of skills lost by the sector. With the absorption rate indicated above, it is evident that whilst there is still a need for skilled labour in the Manufacturing sector, not enough employment opportunities exist to increase the absorption rate substantially as we can still see job losses year on year. The Adcorp Employment Index, released on 10 June 2014, indicated that despite legislation intended to reduce the use of temporary workers or labour broking, there still seems to be an increase outsourcing

[216] NUMSA has provided the merSETA with some information on workers that have been retrenched from the sector between the 3rd Quarter of 2008 and the present. The data contains over one thousand names of people retrenched from about 140 companies. While majority of retrenched workers were last employed as machine operators, many indicated that their previous positions were that of artisan or assistant artisan.

[217] Stats SA QLFS data, Q1 2009-2014

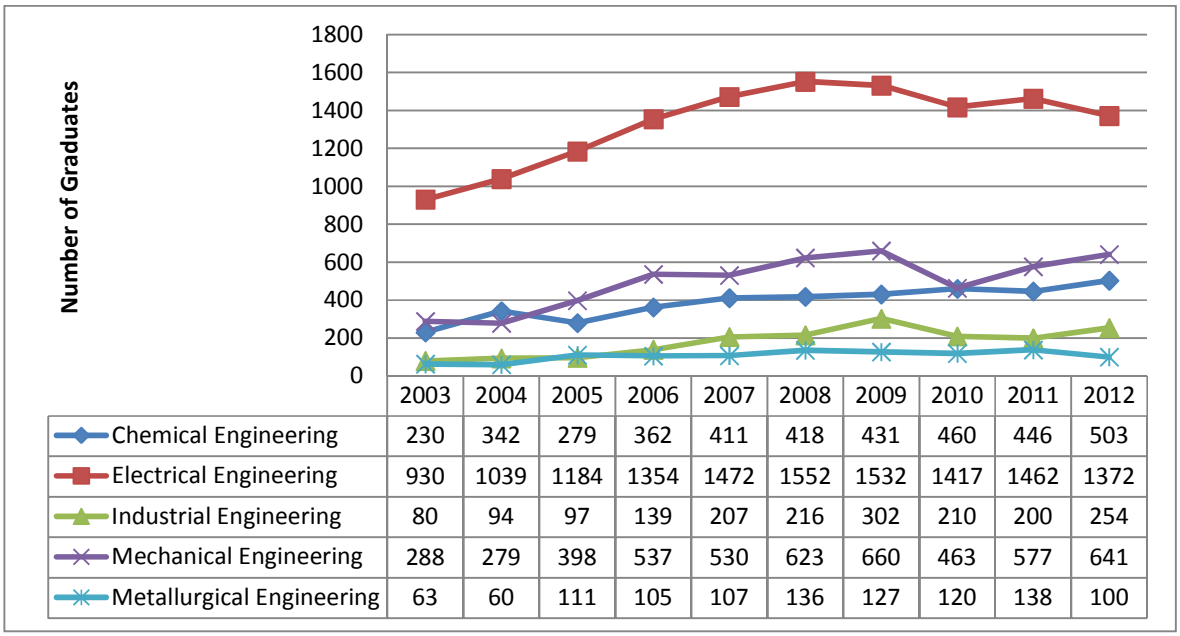
temporary blue collar workers which is a growing trend across various industries. However, in the manufacturing sector outsourced blue collar labour accounts for 33.6% of the total workforce[218].

5.3 THE SUPPLY OF NEW SKILLS TO THE SECTOR

5.3.1 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 of most relevance is the output of engineers; in particular, electrical engineering, mechanical engineering, chemical engineering, industrial engineering, and metallurgical engineering.

Figure 5-2 shows the total number of graduates with national diplomas in selected engineering fields from 2003 to 2012. These graduates become available to the national economy as engineering technicians in the relevant engineering disciplines. Electrical engineering has the highest output (1 372 in 2012), followed by mechanical engineering (641 in 2012) and chemical engineering (503 in 2012). Output from all fields has increased substantially over the ten-year period, although a slight decrease in output was reported in all fields except chemical engineering in 2010. The average annual increase was greatest in industrial engineering (16.6%), followed by mechanical engineering (11.4%), chemical engineering (10.5%), metallurgical engineering (8.7%), and electrical engineering (4.7%).



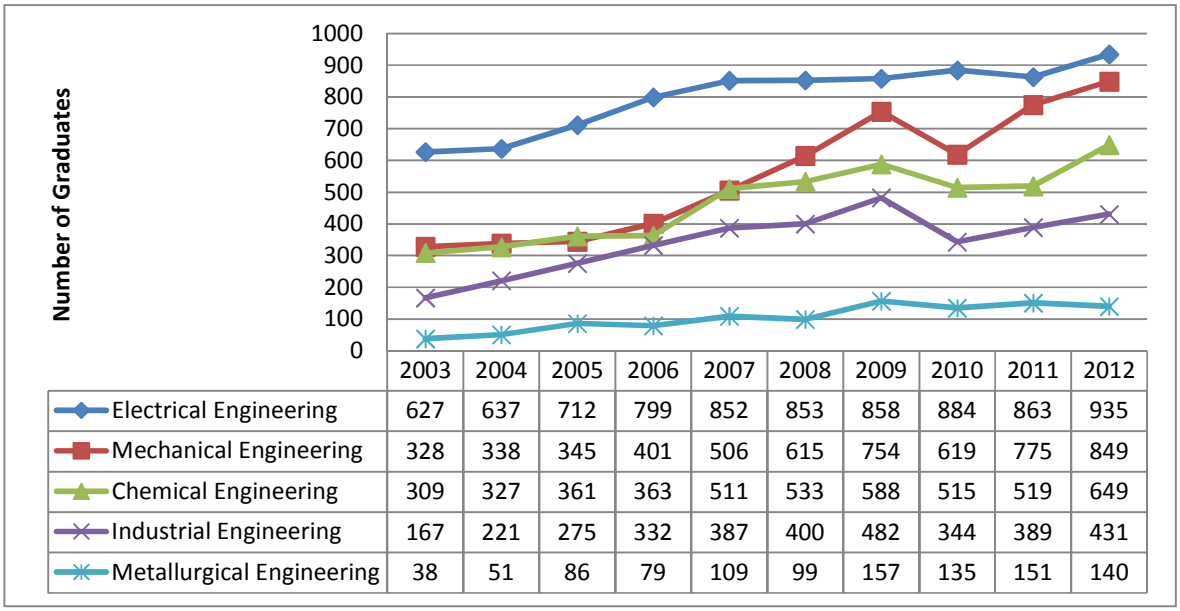
	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Chemical Engineering	230	342	279	362	411	418	431	460	446	503
Electrical Engineering	930	1039	1184	1354	1472	1552	1532	1417	1462	1372
Industrial Engineering	80	94	97	139	207	216	302	210	200	254
Mechanical Engineering	288	279	398	537	530	623	660	463	577	641
Metallurgical Engineering	63	60	111	105	107	136	127	120	138	100

Figure 5-2 Number of national diplomas awarded in selected engineering fields: 2003-2012

Source: CHE, HEMIS

[218] ADCORP Employment Index(2014), released 10 June 2014

In comparison to Figure 5-2, figure below shows the number of first degrees awarded in the same selected engineering fields during the ten year period of 2003-2012. 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. In 2010, a decrease in total output was reported across all fields except electrical engineering which showed a 3% increase during the same year. In the following year (2011) increase in output was the greatest in electrical engineering (863), followed by mechanical engineering (775), and chemical engineering (519). The fields that have demonstrated the highest average annual growth over the past decade are metallurgical engineering with an average annual increase of 19.1% followed by industrial engineering at 12.6%, mechanical engineering at 12.1%, chemical engineering was 9.5% and electrical engineering was 4.7%.



	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
Electrical Engineering	627	637	712	799	852	853	858	884	863	935
Mechanical Engineering	328	338	345	401	506	615	754	619	775	849
Chemical Engineering	309	327	361	363	511	533	588	515	519	649
Industrial Engineering	167	221	275	332	387	400	482	344	389	431
Metallurgical Engineering	38	51	86	79	109	99	157	135	151	140

Figure 5-3 First degrees awarded in selected engineering fields: 2003-2012

Source: CHE, HEMIS

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 merSETA 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 merSETA sector.

merSETA's Bursaries Project awarded 220 new bursaries to unemployed learners for the 2013 academic year, bringing the total number of unemployed learners currently being supported to 600. In addition, 94 learners have

successfully completed a qualifying programme in accordance with merSETA procedures during the 2012/13 reporting period.[219]

A study conducted by the Human Sciences Research Council (HSRC) found that the engineering skills development pipeline is not only long, but is also being adversely affected by a number of factors. One of these factors is the poor-quality schooling system in South Africa, with low enrolment in the critical subject areas of maths and physical science (combined with low-quality teaching and low pass rates in these subjects), which poses a fundamental challenge to growing the national pool of engineers. Engineering faculties also compete with other faculties for enrolments from a small pool of eligible school leavers, among whom Africans are still under-represented.

Poor school preparation is a factor of poor engineering throughput rates, together with other issues such as the increased engineering class sizes; the difficulty some students have in accessing study finance; and limited workplace-training opportunities, which are compulsory for graduation for students from the universities of technology.[220]

5.3.2 Learnerships and apprenticeships

Since its inception, the merSETA has registered 63 159 apprentices on apprenticeships and 57 626 learners on learnerships. In the same period a total of 36 826 apprentices qualified as artisans in the sector and another 33 480 learners successfully completed their learnerships. The annual registration and completion figures for apprentices and learnerships can be seen in the tables below. The beginning of the period (between 2002/3 and 2007/8) shows a generally declining trend of registrations after the initial high figure of almost 10 000. Since 2008/9 registrations have stabilised at about 5 200 per year, while completions appear to be increasing from the low of 1 409 in 2006/7 to a high of 5 220 in 2013/14. Positively, these figures suggest not only a maturation of the system, but also much improved throughput rates.

Registrations in the merSETA learnership system appear to be cyclical, with peaks in 2004/5 (7 657) and 2009/10 (7 523). The reduction in registrations through the second cycle is however less severe than in the first, while learnership completions appear to be on an overall upward trend with a record number of 4 767 in 2012/13 and 4135 in 2013/14.

[219] merSETA (2012) merSETA Annual Report 2012/13.

[220] Du Toit R, Roodt J (2009) Engineers in a Developing Country: The profession and professional education of engineers in South Africa, HSRC Press, Pretoria, 2009.

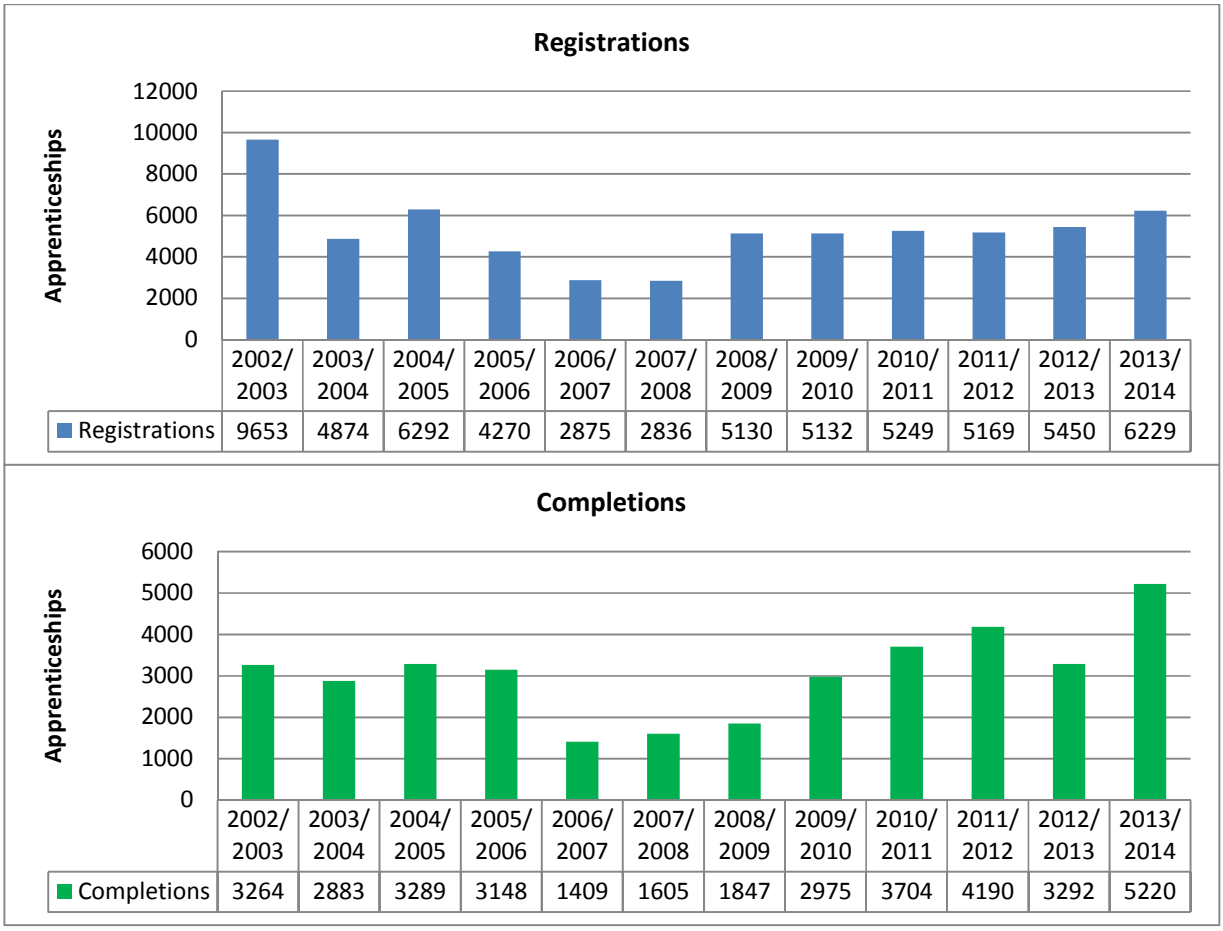


Figure 5-4 Number of apprentices that registered and qualified in the merSETA sector: 2002/03 to 20013/14

Source: merSETA QMR data 2014

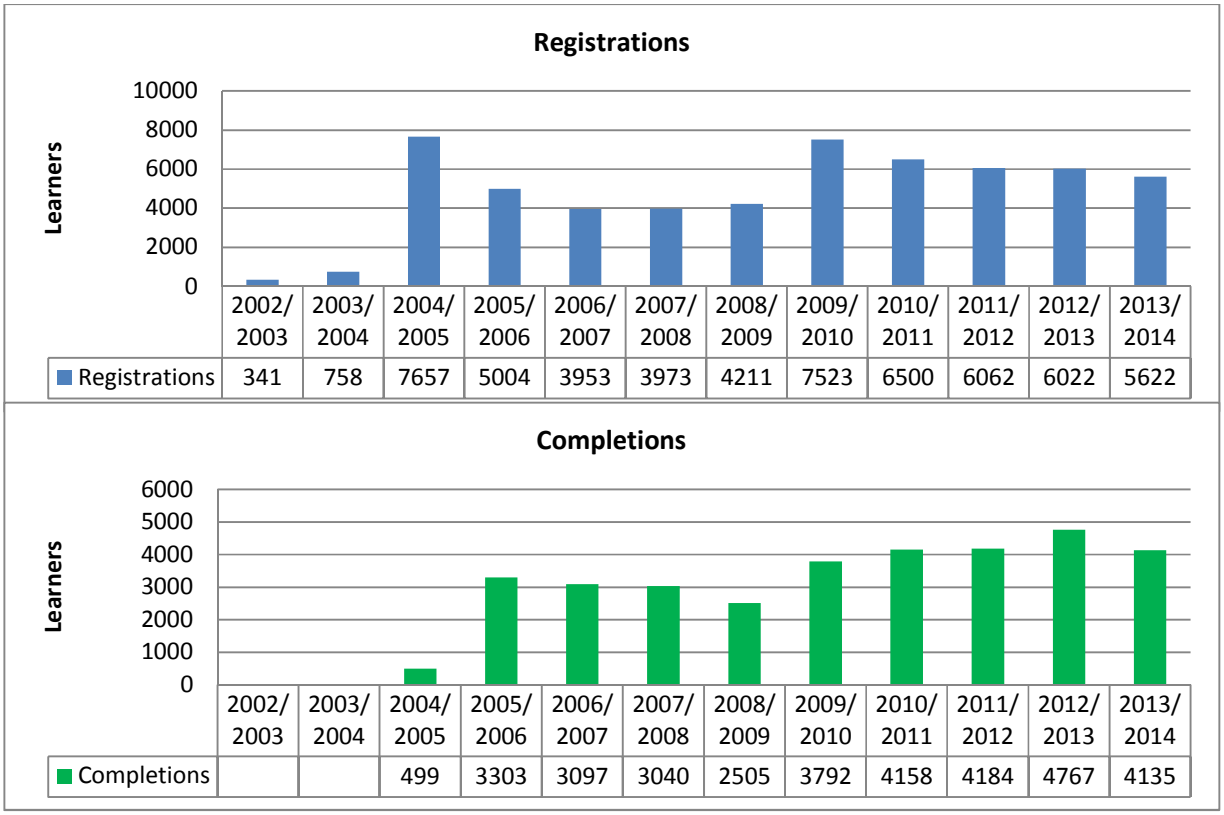


Figure 5-5 Number of learners that registered on learnerships and qualified in the merSETA sector: 2001/02 to 20012/13

Source: merSETA QMR data, 2014

From the figures cited above 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 programmes and continues to monitor trends in registrations and completions.

From outside the merSETA sector, the NGP aims to increase the number of artisans available to the SA economy as a whole through leveraging training from all SOEs. From across Eskom, Transnet, South African Airways (SAA), Denel, Safcol, Alexcor and Infraco, the aim is to have at least 20 000 people enrolled in artisan-related apprenticeships and learnerships between 2011 and 2015.[221]

5.3.3 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

[221] EDD (2011) New Growth Path: Accord 1, National Skills Accord.

purposes. Additionally, as the work-experience component of the training is not enforceable, employers have been reluctant to accept these students.

Despite this, 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 merSETA currently has relationships with 25 TVET colleges. One of the four routes to becoming an artisan is by doing an internship or skills programme on top of having a relevant NCV. Promoting the increased output of such relevant NCV qualifications, in addition to incentivising the provision of internships in preparation for trade testing, is thus one way of increasing the supply of artisan skills for the sector into the future.

In addition, a group of TVET colleges were also granted extension by the DHET in 2010 to offer the N1 to N3 (National Technical Education or NATED 'N') courses again from 2011 onwards. The original group was expanded through merSETA negotiations with the DHET in order to meet the needs of all regions.[222] These courses form the theoretical component of the apprenticeship route to becoming an artisan.

President Jacob Zuma highlighted the long-term importance of TVET colleges in generating the skills that will assist the nation in reducing poverty and unemployment, and their short-term importance in generating the skills required to support the SIPs. As such, the support and growth of this form of education and training have become a major focus of government intervention. The DHET's Green Paper on Post-School Education set the ambitious target of increasing student enrolment in TVET colleges to 4 million by 2030, in support of which an initial R2.5 billion over the period 2012 to 2015 has been set aside from SETA and National Skills Fund (NSF) funds towards the refurbishment and construction of new TVET colleges.[223] In addition, the Minister of Higher Education and Training, Blade Nzimande, ahead of the release of the DHET budget, announced that students entering TVET colleges who qualified for a bursary through the National Student Finance Assistance Scheme (NSFAS) would now receive financial aid that covered 100% of their study fees.[224]

Therefore, while TVET colleges' contribution to meeting the skills demand for the merSETA sector has been limited in the past, the DHET is making huge efforts to change this. Through its Strategic Plan, the merSETA is supporting government's initiative. The Strategic Plan includes a directed focus on promoting the responsiveness of the TVET sector to meeting the immediate skills needs of the metal, automotive and plastics industries, which will be done through: participation in the revision and development of the relevant curricula and qualifications offered by TVET colleges; establishing partnerships that result in increased capacity at TVET colleges; and implementing

[222] merSETA (2010) Achiever Newsletter, http://www.merseta.org.za/Portals/0/01_MERSETAAchieveMag(web)1.pdf, Accessed 29 September 2011.

[223] Skills Portal (2012) Zuma stresses importance of FET colleges, 4 April 2012, http://www.skillsportal.co.za/page/education/fet-colleges/1223082-Zuma-stresses-importance-of-FET-colleges, Accessed 16 July 2012.

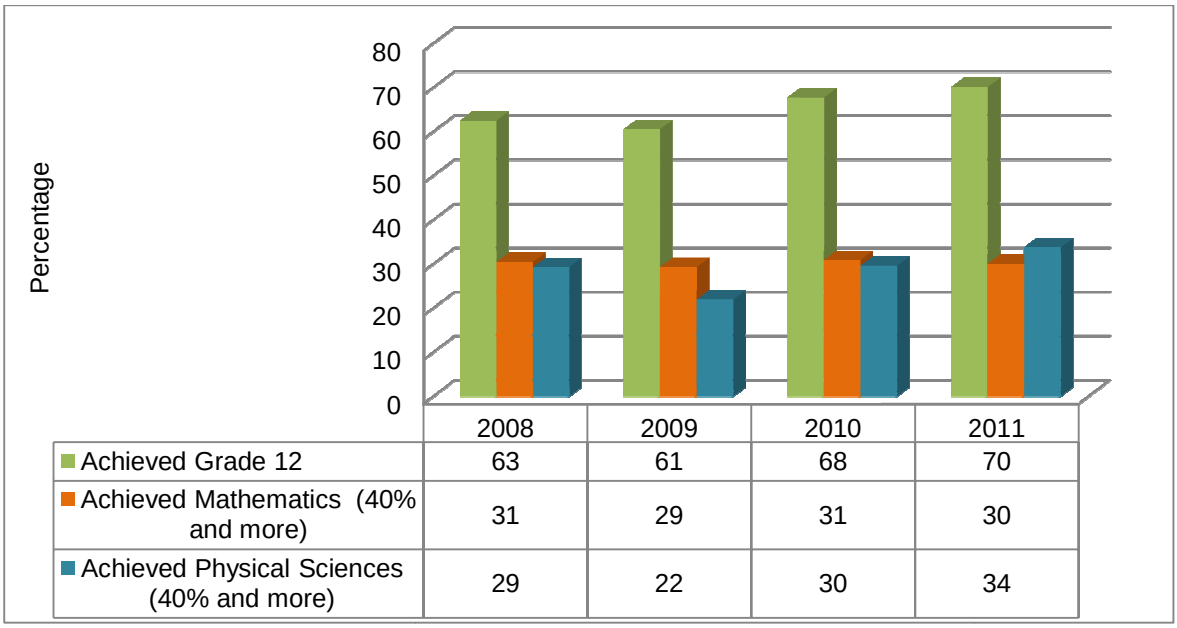
[224] Skills Portal (2012) FET colleges tops on DHET agenda, 24 April 2012, http://www.skillsportal.co.za/page/education/fet-colleges/1243825-FET-colleges-tops-on-DHET-agenda, Accessed 16 July 2012.

mechanisms aimed at bridging the gap between industry and academic provision. As mentioned earlier, the merSETA is currently involved with 25 TVET colleges; progress in these areas is discussed in more detail in Section 5.5 and Section 5.6 below.

5.3.4 General education and training

The output of the general education and training (GET) sector to the overall supply of skills for the merSETA sector is important in two key ways.

First, the number of learners graduating with maths and physical science as subjects at grades that support entry and success at higher education level in qualifications such as engineering has a direct impact on the ultimate availability of these high-level (and future management) skills for the national economy and the merSETA sector. Figure 5-6 below shows the results of those who entered to write the Grade 12 exams. The overall percentage that passed rose from 63% in 2008 to 70% in 2011. Of all those who wrote the Grade 12 exam in 2012, only 30% achieved maths with 40% or more and 34% achieved physical science with 40% or more. These low percentages, combined with the absence of any clear improvement trends for these key subjects, is concerning and a factor that limits the higher education system from increasing access to and success in many of the high-level scarce-skill occupational qualifications.



	2008	2009	2010	2011
Achieved Grade 12	63	61	68	70
Achieved Mathematics (40% and more)	31	29	31	30
Achieved Physical Sciences (40% and more)	29	22	30	34

Figure 5-6 Results of Grade 12 examination

Source: Reports on the National Senior Certificate examination results, 2009, 2010 and 2011. Department of Basic Education, SA. <http://www.education.gov.za/EMIS/StatisticalPublications/tabid/462/Default.aspx> Accessed 8 May, 2013.

Second, a sizeable proportion of the merSETA's employees enter the workforce with their highest qualification being an NQF Level 4 from the GET sector. These people take up positions in the occupational categories machine

operators and assemblers, clerical support workers, and service and sales workers. As they will generally continue their skills training within the sector after they become permanently employed, the number – but more particularly the quality of Grade 12 learners passing with maths – is of importance to the sector.

In recognition of this, the merSETA's Science, Engineering and Technology (SET) Project aims at improving the Grade 12 maths, science and English performance among high school learners and, through this, the supply of these skills to the higher education sector. In 2010/11 the project was in its second year and had a total of 600 learners involved. All learners involved in the project that wrote Grade 12 in 2010 passed and 85% achieved university entrance. Among the learners there were a total of 105 distinctions. Based on the success of the original project, the programme is set to continue, with agreements having been entered into with five TVET colleges and two universities in seven provinces, targeting a total of 1 440 learners and more than 20 schools. This scope includes a greater focus on non-urban regions, and aligns the programme with opportunities for learners at TVET and HET levels. Efforts will also be made to align the programme more closely with company bursaries and with merSETA's planned career guidance units. The last of these represents part of an increased focus on career guidance and development, which started in 2010 and will be implemented in conjunction with the National Youth Development Agency (NYDA), the South African Qualifications Authority (SAQA), and municipalities.

5.3.5 Skills development for people living with disabilities

merSETA's project for people with disabilities has the purpose of developing a strategic plan and an implementation plan to promote training and placement for the disabled in certain occupations in the manufacturing and engineering context, and through this addressing key policy and legislative objectives and obligations. This will bring together a number of projects that are being undertaken by merSETA companies.[225]

In November 2011, the merSETA released its Programme Charter for Persons with Disabilities. The charter's objective is cross cutting and intended to assist the merSETA in achieving all eight NSDS II goals. The vision of the charter is to develop "an integrated merSETA five-year strategy and support programme to promote the skills development of people with disabilities". Importantly, merSETA's disability charter emphasizes not only training in support of increasing employment access, but also training in support of career development within the sector. Finally, the importance of a sector-wide integrated and coordinated approach to skills development of people living with disabilities is highlighted.

[225] Examples include: merSETA's partnership with VWSA in a project (which has now been in operation for four years) that looks at equipping people with disabilities in Business Administration NQF Level 3, and in finding them employment once qualified; and merSETA's partnership with the PlasticsSA project through which the first group of 18 deaf students have graduated from Whisper Boat Building Academy. (merSETA Annual Report 2011/12). Furthermore, merSETA saw 9 deaf learners attain certificates for Metal and Engineering, NQF2 with a further 20 attaining NQF level3 Supervision Learnerships from WISPECO Aluminium (Achieve Magazine, June 2014)

There are currently 4 875 PWD employed within the merSETA sector. Despite being a slight increase from the previous year's figure of 4 680, at 0.8% of total employment this proportion has essentially remained unchanged since 2011. The chambers with the highest percentage of people with disabilities (1.1% and 1.0% of total employment) are the Auto and Motor Chambers.

The Auto Chamber's commissioned as their 2013 research project, a focus on matching disability with suitable employment categories in the sector, and at looking at the best way to recruit, train and deploy people living with disabilities on merSETA scarce-skills learnerships within the subsector. Phase 1 of the implementation of merSETA's Disability Charter was anticipated to be the analysis of this research. The research process however revealed that while certain occupations are more suited to certain types of disabilities than others,[226] the unique nature of all disabilities means that matching the right person to the right job should only be done after the completion of training, and cannot be undertaken before the time.[227]

While revisions of the merSETA's Disability Charter implementation plan will have to be made based on this outcome, 200 learners with disabilities have been directly reached through the project.

5.3.6 Regional variation in skills supply

merSETA's focus on skills supply has generally considered the flow of skills into the labour market at a national level. The more localized perspective of skills demand has however been fore-fronted by an increasing focus on the SIPs and SEZs such as Saldanha Bay with the result that skills supply must now also be considered at this level. A recent research report commissioned by merSETA highlights the regional variation in skills development opportunities in Gauteng province, the province that is considered to be the best skills development infrastructure in the country.[228] The spatial challenges encountered by particularly the poor in accessing education and training means that the issue of regional variation in skills supply thus needs to be considered more closely into the future. To support the regional variation in supply and skills development initiatives, the merSETA regional committees are focused on supporting Provincial Skills Development Forums and the Strategy and Research Unit is working with the DTI towards developing a skills development framework to support skills needs of SEZs.

5.4 TRAINING AND DEVELOPMENT OF THE CURRENT WORKFORCE

[226] The report considered specifically the top six scarce skills in the Auto Chamber. Spray painting, millwright/electro-mechanician, and paintless dent removal all require physical strength, manual dexterity, good vision and good hand-eye coordination, which would exclude certain visual and physical disabilities. Electricians and automotive electricians, although not requiring physical strength, do require good vision and colour discrimination, manual dexterity, and the ability to work for long periods in cramped spaces. The other most commonly identified scarce skill, that of mechatronic technicians, does not exclude people with physical disabilities as it is a more desk-bound, intellectually challenging job, but it does require good communication skills and many years of study, and requires an aptitude for mathematics and science.

[227] merSETA (2013) Final draft research report for MERSETA OEM chamber: Empowering people with disabilities project.

[228] Lolwana P (2013) Place Matters: Education and Employment in the Margins of Gauteng, Research in Education and Labour (REAL) Centre, University of the Witwatersrand, Johannesburg, March 2013.

This section describes a selection of the initiatives that the merSETA has in place to train and develop the sector's current workforce. While many of these initiatives do not address the issue of 'scarce' skills directly, they however address the need for skills which industry considers as 'critical' to its continued operation.

5.4.1 Qualifications developed by the merSETA

Companies in the merSETA sector are involved in a range of training and development initiatives that focus on developing the skills of their employees. Such initiatives supplement, but also build on the training that supplies new skills to the sector. This training and development of the current workforce forms a critical source of skills supply.

merSETA qualifications registered with SAQA range from NQF Level 1 to Level 5. The majority of these qualifications are attained through learnerships. The merSETA skills programmes are made up of unit standards or groups of unit standards that belong to these qualifications.

5.4.2 Management and supervisory development

Managers and supervisors in the metals, automotive and plastics manufacturing sectors need a combination of industry-specific knowledge and technical knowledge of and skills in the functional area to be managed, as well as supervisory and management skills. In most instances managers and supervisors are drawn from within the workforce (and therefore, already have technical and functional knowledge). Further skills development happens through combinations of formal training programmes such as Masters of Business Administration (MBA) programmes as well as short courses and in-service training. The limited supply of particularly black managers means that a focus of this form of training for potential managers from previously disadvantaged backgrounds will remain critical into the foreseeable future.

5.4.3 Skills programmes

A skills programme is a structured learning programme that comprises an agreed cluster of unit standards. 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 constitutes credits towards an NQF-registered qualification. This means that some or all of the unit standards in the skills programme form part of the unit standards that together make up a qualification. Credits obtained during the course of a skills programme will thus constitute credits towards the qualification.

Skills programmes 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, particularly since 2009/10. Similarly, completions of skills programmes are also increasing, with a total number of completions of 3 451 for 2012/13.

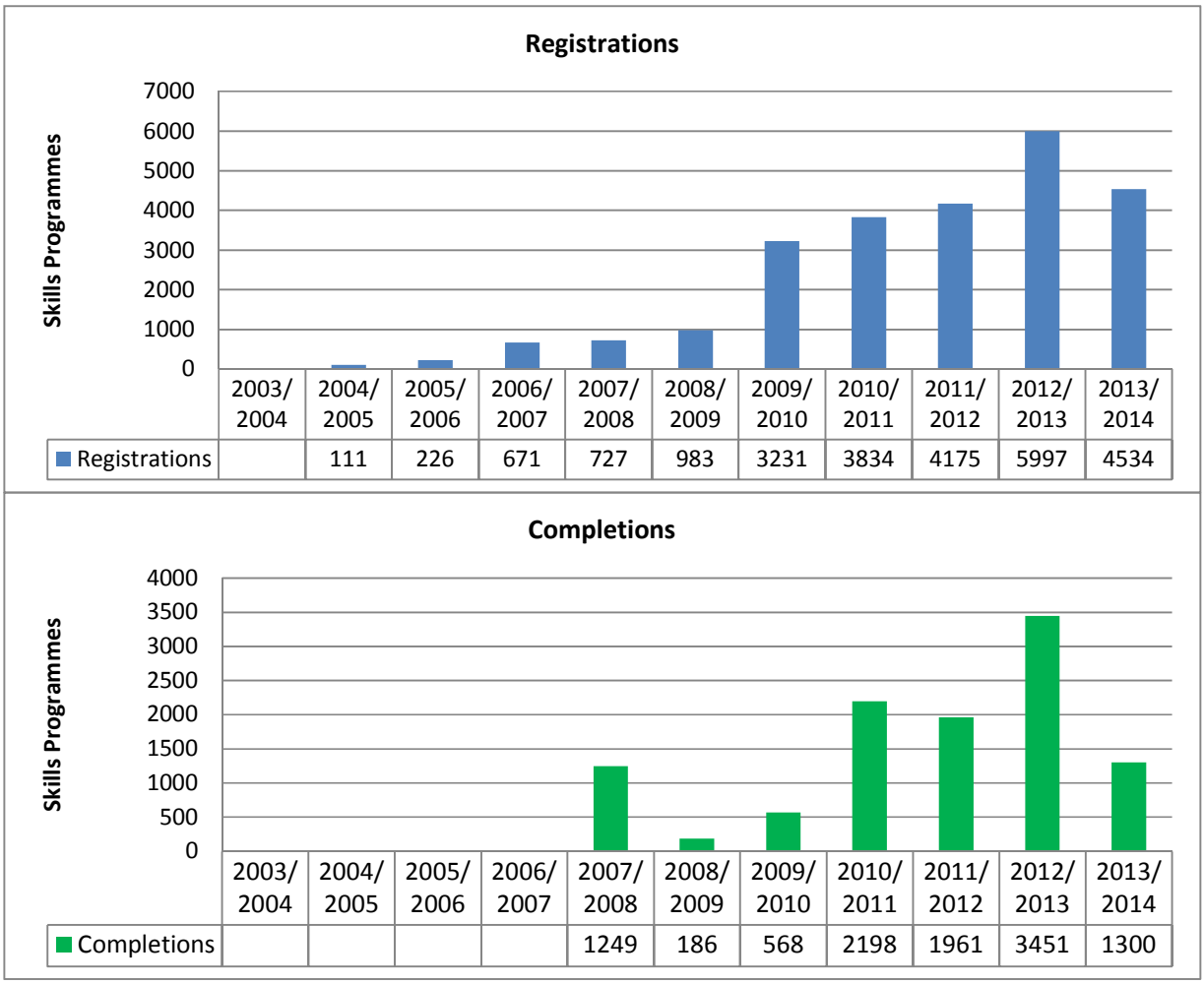


Figure 5-7 Skills programme registrations and completions: 2004/2005-2013/2014

Source: merSETA QMR data 2014

5.4.4 Adult Education and Training (AET)

Adult Education and Training (AET) is especially prevalent among the relatively large group of elementary workers within the sector. The aim of Adult Basic Education and Training (ABET) is to provide access to further and higher education and training; it seeks to connect literacy with both general education and with training for income generation. ABET precedes TVET but taken together these two components comprise AET and progressively initiates adult learners into lifelong learning and development[229]

[229] Policy Document on Adult Basic Education and Training

Employers that submitted Annual Training Reports (ATRs) for the year 2013/14 reported that 2 277 workers completed AET programmes with a further 150 completing ABET specific programmes. This total represents 1.5% of the total number of workers within the occupational category elementary workers (150 960). Of the 3 694 workers that completed AET, 90.0% were African, 6.5% were Coloured, 0.7% were Indian and 1.9% were white. Overall, 81.7% of those employees that completed AET were male and 18.3% were female. White and Indian workers made up only slightly smaller proportions of the employees that completed AET training than they represent within the demographic profile of the sector's elementary workers.

		African	Coloured	Indian	White	Total	
						N	%
Male		1706	108	11	35	1860	81.7%
Female		363	41	5	8	417	18.3%
Total	**N**	**2069**	**149**	**16**	**43**	**2 277**	**100%**
	%	90.9%	6.5%	0.7%	1.9%	100.0%	

Source: merSETA ATR data, extracted June 2013

Table 5-1 Employees who completed AET: 2013/14

5.4.5 Foundational Learning Competence (FLC)

The Foundational Learning Certificate (FLC) is an integral component of the new QCTO qualifications. The QCTO's qualification design approach includes knowledge, practical and workplace experience components, as well as the FLC to obtain a fully-fledged QCTO occupation qualification certificate at NQF Level 4. The FLC was developed to replace what was previously known as the "fundamentals" in the legacy qualifications. In 2013/14 merSETA collaborated with Columbus Stainless (Pty) Ltd to pilot the FLC and 120 learners from Columbus participated, 65 supported through the merSETA/Columbus contract and another 55 fully sponsored by Columbus. The Columbus employees were all matriculated and computer literate and the 120-strong pilot sample was drawn from across divisions and occupation for the purpose of the action research that formed part of the pilot. Columbus was keen to participate in the pilot because of the opportunity the FLC design and delivery mechanisms presented for manufacturing concerns to accommodate shift workers. In March 2014, Columbus submitted the action research report, which has become a valuable source of information in engagement with the QCTO about the outcome of the pilot, from a results and SETA administration perspective. "Administration" includes reporting to SAQA and the DHET and providing statistical information for a range of sources. During the Columbus pilot it was already clear that there were some differences in the levels of difficulty of the communications aspect of the FLC versus the mathematical literacy aspect. Generally speaking, learners at Columbus with an artisanal background obtained better results in the pilot than learners in other occupational areas of work. This observation could be related to the significant amount of applied mathematics that is integral to trades.

At the start of the 2014/15 financial year, merSETA signed six more MoAs to expand the FLC pilot to reflect a greater national footprint in different merSETA company context. At this point only the results of the FLC pre-tests of the new pilots are available, but it is clear that learners who participated in the pre-tests required more than ABET Level 4 mathematical literacy to pass the pre-test or even obtain the minimum to enter into training to be considered for the FLC summative assessment. The 2014/15 pilot pre-test results confirm that there appears to be a difference in the degree of difficulty of the mathematical literacy and the communications. Apart from the pre-test results, pilot companies also pointed out that the multiple choice summative assessment approach does not give an opportunity to test reading and writing abilities.

The merSETA has been liaising with the QCTO about the outcome of the Columbus pilot and the observations documented in the current six FLC pilots. As pilot information is manifesting, merSETA is supplying the QCTO with information to enable decision-making at QCTO Board and operational levels in terms of the way forward in implementing the QCTO's qualification model.

5.4.6 Competence Measurement in Education and Training (COMET)

The COMET model was developed as an instrument to measure and benchmark competence levels within the vocational education and training (VET) system and brought to South Africa but ye Manufacturing, Engineering and Related services Sector Education and Training Authority (merSETA).The COMET model assesses the individual levels of competence per person and points out the strengths and weaknesses of the VET system. It furthermore provides a comparative assessment across VET institutions internally as well as systems in different countries externally.

The South African COMET pilot project measured competence at four levels which are determined through a set of test instruments including open-book tests and learning tasks, a context questionnaire and questionnaires of the student's test motivation. These four competence levels include:

- Nominal competence
- Functional competence
- Processual competence
- Holistic shaping competence

As teachers play a central role in student's competence levels, they were trained in advance so that adjustments could be made to lesson plans as to include problem-solving exercises beyond the basics. This will ensure that teaching is adapted using 'work-process knowledge principles' to enhance students' learning before the COMET tests. Findings of the pilot COMTET test indicated that the tests achieved what it set out to do, which is it successfully assessed the competence of individual apprentices, enhanced teaching and learning through the

preparation of TVET lecturers, it pointed out strengths and weaknesses of the current delivery model and it enabled comparison between TVET institutions and between TVET sectors of different countries.

Critically, the pilot indicated that the merSETA has developed a feasible model to update the apprenticeship system in South Africa. Therefore, the merSETA is now ready to roll out this approach to other occupations, including Mechatronics Technicians, Welders and Electricians. This entails making available the COMET tests to apprentices in these three additional trades which will enable companies to assess their apprentices' problem-solving competence before they reach the trade test milestone. With the introduction of a new delivery model such as the Dual System Apprenticeship, the merSETA could potentially transform the South African apprenticeship system to meet the requirements of modern industrial settings.

In the latter half of 2014 the merSETA embark on a national roll out for COMET.

5.4.7 In-service training

In-service training is also a critical part of skills development in the merSETA sector and spans a wide array of skill areas and skill needs. It takes place through a variety of training methods – ranging from structured courses offered in the classroom to informal on-the-job training. This training is not linked to formal qualifications.

Employee attendance at short courses relates to areas spanning health and safety, soft skills, product knowledge and management training. The table below shows the demographic breakdown of merSETA short course attendees through 2013/14 combining the Annual Training Report and the PIVOTAL Report. Half were African (49.8%), and the majority were male (81.6%). While the proportional representation of white workers within this group (30.8%) is higher than their overall sectoral demographic representation, this may relate to their high representation at management level (65.7%),[232] and the fact that workers at this level may be the beneficiaries of more than one short course in the space of a year (Table 5-2).

		African	Coloured	Indian	White	Total	
						N	%
Male		79748	18378	10681	46096	154903	81.6
Female		14727	4998	2764	12359	34848	18.4
Total	**N**	**94475**	**23376**	**13445**	**58455**	**189751**	**100**
	%	**49.8**	**12.3**	**7.1**	**30.8**	**100**	

Table 5-2 Employees who completed Short Courses: 2011/12

Source: merSETA ATR data extracted June 2014

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With regards to another form of in-service training – experiential training – merSETA companies provided 2 009 individuals with opportunities in 2013/14, this figure is 21.4% lower than previously reported. This could be attributed to the economic climate with job shedding there may be fewer opportunities to engage in experiential training.

Training areas include chemical engineering, analytical chemistry, polymer technology, civil engineering, electrical engineering, engineering metallurgy, metallurgy extraction, industrial engineering, mechanical engineering, process instrumentation, maritime technology and a range of other non-technical areas such as finance, marketing, human resources and administration. Of those who underwent experiential training in the past year, 78.9% were African and 35.5% were female, this shows proportionally more females underwent this training than in previous years indicating a positive drive towards female empowerment in the sector.

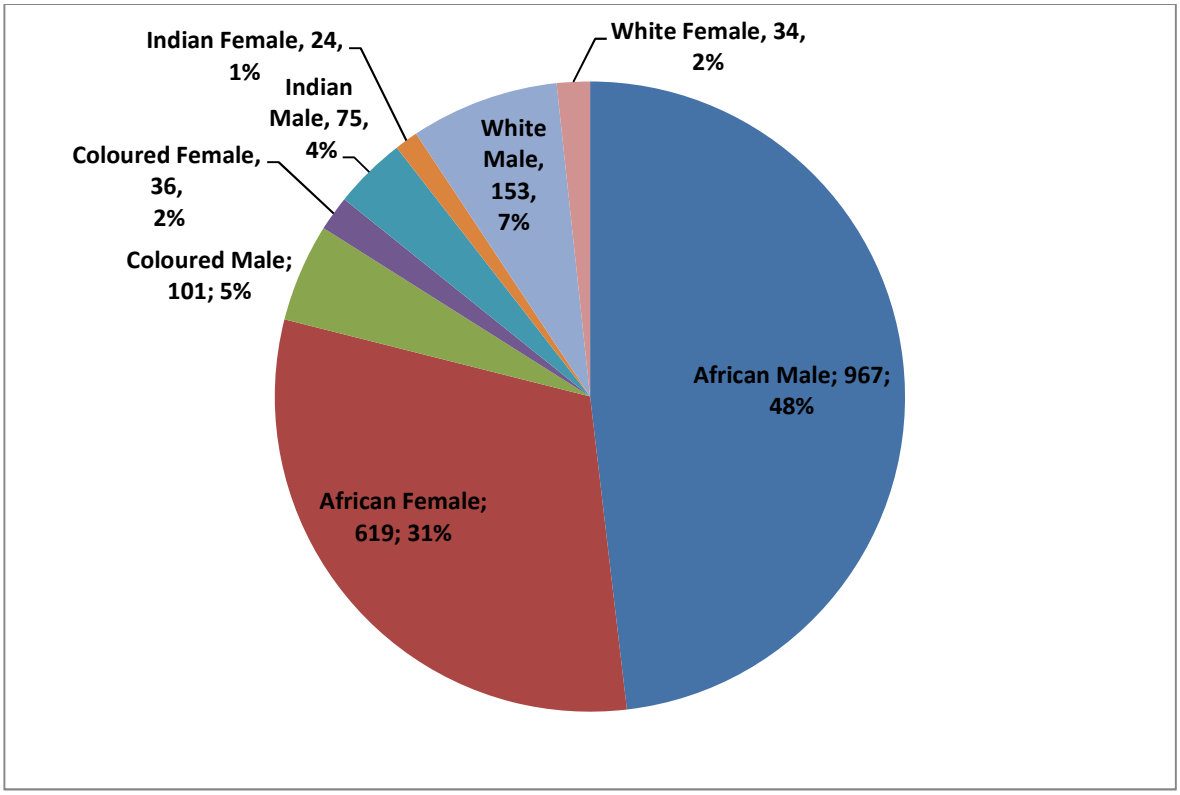


Figure 5-8 Race and gender of experiential learners, 2013/14

Source: merSETA WSP data 2014.

A number of merSETA companies are involved in the provision of internships for recent graduates as a way of providing them with access to work experience and in-service training. The results of the first baseline study of internships were released in September 2013. The study points out the value of these programmes for all participants in the area of soft skills (time management, problem solving, interpersonal skills etc.). However, the study also highlights a range of inconsistencies and shortfalls in the implementation of internships by companies. Recommendations for improving the value and reach of this form of in-service training include among others:

improving the alignment between qualifications and the work conducted; increasing intern's access to formal workplace based training; putting in place structured mentoring programmes; increasing the number of internship opportunities in small towns and rural areas; increasing efforts to recruit disabled graduates; and increasing the length of internships from one to two years.[233] The merSETA will consider these recommendations in an effort to improve the impact of this programme.

Finally, recent merSETA research into the new tyre sector highlights the importance of in-service training in this sector where insufficient relevant formal industry-specific qualifications exist and where most new employees thus require additional in-service training. Promotion to management positions in the past has also been considerably weighted towards experience within the sector rather than towards formal qualifications.[234]

5.4.8 Continuous professional development

Professional bodies undertake to monitor the mandated continuous professional development (CPD) for their professions.[235] In 2031/14, 27 269 individuals in merSETA companies took part in CPD training.

		African	Coloured	Indian	White	Total	
						N	%
Male		8801	2713	2034	7872	21420	78.6
Female		2371	774	455	2249	5849	21.4
Total	**N**	**11172**	**3487**	**2489**	**10121**	**27269**	**100**
	%	**41.0**	**12.8**	**9.1**	**37.1**	**100**	

Table 5-3 Employees who completed Continuous Professional Development (CPD): 2011/12

Source: merSETA ATR data, extracted June 2014

Compared to the demographic profile of the occupational group 'Professionals' it is clear that African and Coloured professionals are receiving focused attention in terms of professional development: Africans represent 26.1% of the total group of professionals and received 41.0% of CPD opportunities, while Coloured workers represent 8.5% of the total group of professionals and received 12.8% of CPD opportunities. The proportion of White Professionals however is still quite sizable and a significant percentage (37.1%) of these workers also received CPD opportunities.

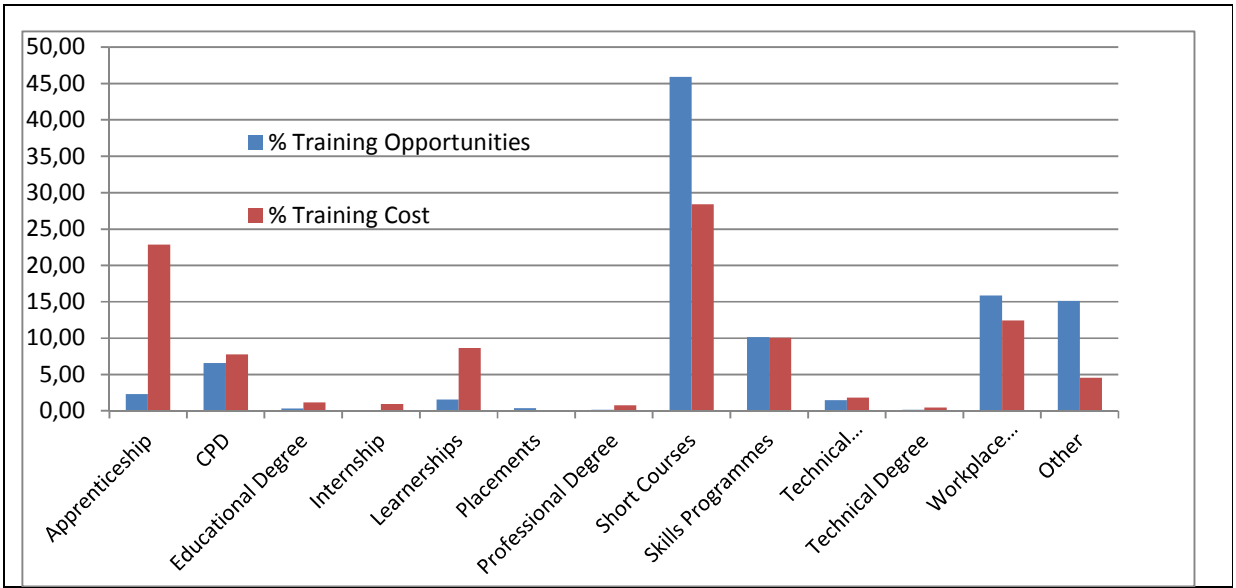
[233] SAGDA (2013) Final Report on the Internship Baseline Study, 18 September 2013.

[234] merSETA (2012) An Analysis of the South African Tyre Manufacturing Industry's Skills Demand Profile: 2009 – 2020, Final Report 30 November 2012, B&M Analysts.

[235] Motor sector research 2013, suggests that there may be a need for continuous professional technical development (CPTD) for technicians in order to remain relevant and up to date. New skills are considered necessary in respect of: the green agenda; social media; technological innovation; changing population dynamics and its impact on the sector; entrepreneurship; the impact of globalization; and in specialized areas including welding, new fuel sources, supply chain and logistics; and customer relations. This is considered especially important in light of the fact that current curricula do not take these issues into account. Source: merSETA (2013) Motor Research Project: Employment and Educational and Skills Audit of the merSETA Motor Chamber.

5.4.9 Summary of training spend by merSETA companies

The figure below provides a summary of the distribution of training opportunities and training spend across the various types of training in 2013/14. The largest category was "Short Courses". While often non-accredited, this form of training provides companies with a great deal of flexibility and enables them to respond quickly and easily to training needed to maintain or increase their productivity and competitiveness. Furthermore, short courses formed a larger proportion of the overall number of training opportunities (45.9 %) than they do of the overall training expenditure (28.4 %) indicating that this form of training not only reaches the largest number of merSETA employees, but is also relatively cost-effective. In terms of training opportunities, the categories "Workplace Experience" and "Skills Programmes" have the next highest 'reach' at 15.9% and 10.2% respectively. With respect to training expenditure, apprenticeships, at 22.84% is the second largest category, followed by learnerships at 8.7%. Skills programmes at 10.2% and CPD at 7.8% (Figure 5-9).



	% of total training opportunities	% of total training cost
Apprenticeship	2.31	22.84
CPD	6.56	7.77
Educational Degree	0.32	1.19
Internship	0.05	0.98
Learnerships	1.56	8.66
Placements	0.37	0.06
Professional Degree	0.15	0.81
Short Courses	45.93	28.41
Skills Programmes	10.15	10.03
Technical Certificate	1.47	1.82
Technical Degree	0.15	0.47
Workplace Experience	15.87	12.43

Figure 5-9 Distribution of training opportunities and expenditure by merSETA companies2013/14

Source: merSETA ATR data, extracted June 2014

5.5 MERSETA'S SUPPORT FOR ARTISAN DEVELOPMENT

The merSETA's core focus since its foundation has been to increase the supply of skills and alleviate skills shortages in the metal, automotive and plastics manufacturing sectors. Apart from the provision of bursaries and grants, the merSETA has also: ensured that the necessary qualifications and learnerships are registered; has accredited providers; has supported the training and registration of assessors and moderators; has verified assessments and awarded qualifications; and has undertaken research to identify areas requiring focus as well as to uncover the impact of its existing and/or completed programmes.

In the discussion that follows, some of the merSETA interventions in relation to artisan development are highlighted and discussed in more detail (It is however not possible to provide in this document a full account of all the Seta's interventions since its inception).

5.5.1 The Accelerated Artisan Training Programme (AATP)

AATP was conceptualised in 2004 by the Steel and Engineering Industries Federation of South Africa (SEIFSA) and the merSETA assumed responsibility for the programme in 2007 by launching a pilot programme on 1 June. The merSETA's AATP showed great success and proved that it was possible to train and qualify junior artisans in the automotive and metal industries within a period of between 22 and 36 months. This allowed the merSETA to position itself as the leading SETA in respect of artisan development with AATP. This training Programme has positively contributed to the alleviation of the severe shortage of artisans in South Africa and has also had a positive impact on the county's economic growth[236].

The AATP is being implemented through a funding partnership between the merSETA and the NSF. This programme was initiated with the aim of accommodating TVET college graduates with N3 and N4 qualifications and accelerating their artisan training. More recently NCV 4 graduates have also been entering the programme. The programme utilises both learnership and apprenticeship training modes, according to the individual preferences of companies and sectors.

Aside from the quantitative objectives of the programme to address skills shortages, this initiative has become an important platform for the implementation of artisan-related research initiatives from large-scale competence diagnostics, to vocational identities, to measurement of net returns, to tracer studies. Findings are disseminated in support of strengthening the artisan development eco-system and where necessary, making systemic changes towards sustainable improvements. In line with recent research findings that previous qualifications do not in fact impact on the length of time required to successfully complete artisan training, Phase 4, 5 and 6 of the programme

[236] merSETA AATP (2014) case study submitted to ILO for sharing of best practice among SADC countries

have been extended in duration with training essentially no longer being 'accelerated'[237]. By March 2014 a cumulative total of 4858 learners had entered and 3110 had qualified through the programme.

Overall, learners on the AATP have been registered against 26 different trade qualifications. Of the total number of learners on the programme to date, however, seven trades account for 84.6% of registrations and 86.8% of qualifications as can be seen in the table below:

- Millwrights account for 425 registrations (8.7%) and 277 qualifications (8.9%)
- Riggers account for 496 registrations (10.2%) and 312 qualifications (10.0%)
- Welders account for 931 registrations (19.2%) and 492 qualifications (15.8%)
- Boilermakers account for 745 registrations (15.3%) and 486 qualifications (15.6%)
- Fitters account for 559 registrations (11.5%) and 398 qualifications (12.8%)
- Motor mechanics account for 513 registrations (10.6%) and 315 qualifications (10.1%)
- Electricians account for 443 registrations (9.1%) and 421 qualifications (13.5%)

[237] merSETA (2012) AATP Post Trade Test Tracer Study, Final Report, 20 September 2012.

Trades	2007/8		2008/9		2009/10		2010/11		2011/12		2012/13		2013/14		Total	
	Reg	Qual	Reg	Qual	Reg	Qual	Reg	Qual	Reg	Qual	Reg	Qual	Reg	Qual	Reg	Qual
Boilermaker	27	0	170	0	189	91	68	129	67	145	129	39	95	82	**745**	**486**
Armature Winder	0	0	0	0	4	0	0	0	0	1	0	0			**4**	**1**
Automotive Body Repair	0	0	10	0	0	0	7	10	0	0	15	6			**32**	**16**
Automotive Electrician	0	0	1	0	0	0	0	0	0	1	0	0			**1**	**1**
Diesel Fitter	0	0	0	0	0	0	0	0	4	0	0	0		1	**4**	**1**
Diesel Mechanic	0	0	29	0	13	0	19	23	11	6	59	32	34	4	**165**	**65**
Earth Moving Equipment Mechanician	0	0	17	0	0	0	0	9	0	8	0	0			**17**	**17**
Electrician	0	0	123	0	102	124	54	105	67	92	83	38	14	62	**443**	**421**
Electronics Equipment Mechanician	0	0	1	0	0	0	0	1	0	0	0	0			**1**	**1**
Fitter	63	0	102	0	132	82	45	72	74	120	106	40	37	84	**559**	**398**
Fitter & Turner	19	0	33	0	19	17	9	38	7	13	41	2	9	6	**137**	**76**
Forklift Mechanic	0	0	19	0	6	8	18	4	22	11	0	18	0	19	**65**	**60**
Instrument Mechanician	9	0	28	0	22	18	7	9	38	28	28	17	5	26	**137**	**98**
Millwright	22	0	127	0	102	34	61	82	47	76	55	47	11	38	**425**	**277**
Motor Mechanic	146	0	105	0	62	4	146	75	26	55	28	93	0	88	**513**	**315**
NC: Automotive Repair and Maintenance*	0	0	0	0	42	0	10	0	0	5	0	0	0	0	**52**	**5**
NC: Autotronics	0	0	0	0	0	0	0	0	10	0	0	0	0	0	**10**	**0**
NC: Mechatronics	0	0	0	0	0	0	0	0	17	0	0	0	0	0	**17**	**0**
Refrigeration Mason	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**0**	**0**
Refrigeration Mechanic	0	0	0	0	0	0	0	0	5	0	9	0	4	5	**18**	**5**
Rigger	4	0	39	0	69	7	56	30	75	97	223	46	30	132	**496**	**312**
Roll Turner	0	0	1	0	0	0	0	1	0	0	0	0	0	0	**1**	**1**
Spraypainter	0	0	0	0	13	0	16	0	0	9	4	12	0	1	**33**	**22**
Tool Jig & Die Maker	4	0	9	0	9	3	0	13	6	5	1	1	6	3	**35**	**25**
Turner	6	0	8	0	1	9	0	6	0	0	0	0	2	0	**17**	**15**
Welder	0	0	121	0	124	40	309	99	76	171	184	67	117	115	**931**	**492**
Annual Totals	**300**	**0**	**943**	**0**	**909**	**437**	**825**	**706**	**552**	**843**	**965**	**458**	364	666	**4858**	**3110**
Cumulative Total Entries	**300**		**1243**		**2152**		**2977**		**3529**		**4494**		4858			
Cumulative Total Qualifications		**0**		**0**		**437**		**1143**		**1986**		**2444**		**3110**		

***Passenger and light vehicle**

**** up to March 2013**

*****up to March 2014**

Table 5-4 Accelerated Artisan Training Programme (AATP) registrations and qualifications: 2007-March 2014

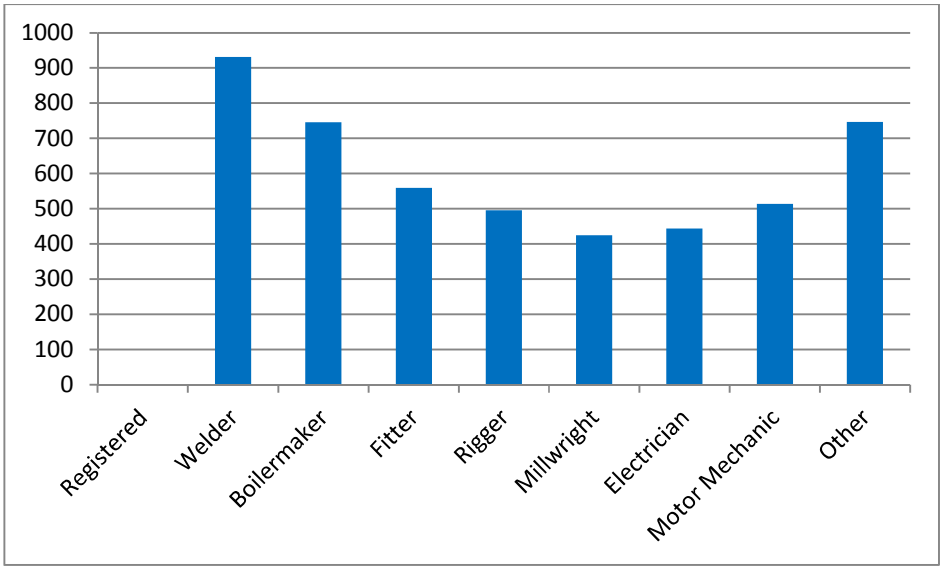


Figure 5-10 Total AATP learner registrations by trade (January 2007 to March 2014, N= 4 858)

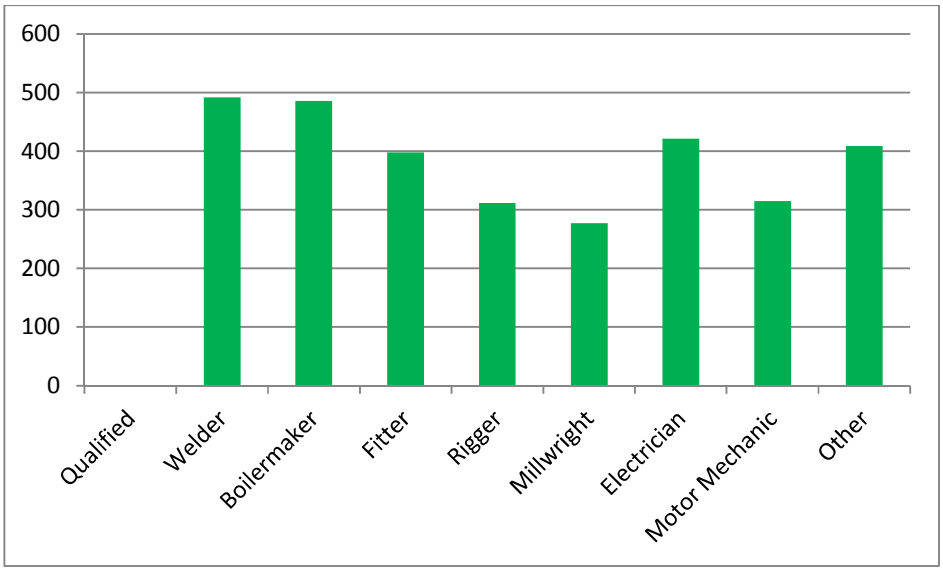


Figure 5-11 Total AATP learner qualifications by trade (January 2007 to March 2014, N=3 110)

Of the group of trades that fall into the 'other' group, the largest contributors in respect of learner registrations are for the trades: welder, boilermaker, fitter, rigger, millwright, electrician, and motor mechanic.

While there is an inevitable delay between learner registrations and qualifications (with no qualifications expected in the first couple of years after registration), a major discrepancy between the numbers of registrations and qualifications is evident for the welder related qualifications.

The merSETA evaluated the AATP using a Tracer Study Methodology in 2012. Overall Post Trade Test employment levels were 80%, with this being highest for the 2007/8 intake (89%) and lowest for the 2010/11 intake (57%).

Employment levels were higher for certain trades than for others. The highest employment level was for Riggers (92%) followed by Fitters (88%) and Fitters and Turners, Millwrights and Motor Mechanics (85% each). While still high, Welders (at 70%), Electricians (at 74%) and Boilermakers (at 79%) had the lowest levels of employment. Thus the study suggests that apprenticeships in the former group of trades should be encouraged.[238]

The generation of large numbers of qualified artisans in the motor-related trades is seen as one of the key ways in which merSETA can promote rural development and sustainable livelihoods. As indicated in Chapter 2, the geographical distribution of the motor retail and service sector is likely to follow the geographic distribution of the vehicles in use across the country. This is considerably more equitably distributed than the manufacturing portion of merSETA operations, with KwaZulu-Natal province (a largely rural province) having the third largest vehicle park after Gauteng and the Western Cape. As such, the development of qualified motor mechanics that are able to find employment almost anywhere in the country or are able to work as self-employed entrepreneurs promotes the rural agenda.[239]

The merSETA's Strategic Plan 2011/12-2015-16 has set the sector the goal of qualifying 20 000 artisans over the period, using the AATP as a catalyst and quality-linked research platform. This is seen to be a realistic target from the perspective of interested learners and willing employers. The biggest challenge is funding, however, as employers are indicating that they are willing to do the training but that they cannot pay for it. As the generation of artisans is of utmost strategic importance for the merSETA, it becomes critical that merSETA not only finds ways accessing extra funding through partnerships,[240] also focuses on improving the efficiency and sector-specific impact of the other programmes that it is funding.[241]

5.5.2 The Artisan and Technician Technical Task Team (ATD-TTT)

Together with government (including the NAMB) and a range of other stakeholders, the merSETA forms an integral part of the Artisan and Technician Development Technical Task Team (ATD-TTT). The ATD-TTT has identified three major bottlenecks in respect of artisan development in SA and is in the process of setting in place mechanisms to address each of these.

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[238] merSETA (2012) AATP Post Trade Test Tracer Study, Final Report, 20 September 2012.

[239] Information obtained through a telephonic interview with Helen Brown, manager of the merSETA's Accelerated Artisan Training Programme, 30 September 2011.

[240] Dr. Raymond Patel (2012) merSETA, interview, 6 July 2012.

[241] In support of NSDS III, which encourages support for NGOs and co-operatives as a strategic imperative towards poverty alleviation, merSETA has been engaged in an NGO support programme over the period 2009 to 2013. An evaluation of the impact of the project was commissioned, with the related report received in October 2013. The report strongly questions the relevance for the manufacturing and engineering sector of the types of skills development provided by the NGOs. Because NGOs are not geared up for the specificity of skills interventions in the merSETA sector and often sub-contract training when it is of relevance , the report concludes that funding through NGOs is both programmatically impractical and financially unsustainable and thus recommends the discontinuation of the programme in its current form. Source: merSETA (2013) External evaluation of the merSETA NGO support programme for the period 2009 to 2013, inclusive of recommendations for future programmes, October 2013.

The first major bottleneck is considered to be the lack of detailed, accurate and current data for artisan and technologies trade prioritisation, workplaces and placement, which together serve to undermine scientific target setting, monitoring and evaluation. Towards the alleviation of this problem the ATD-TTT has: developed the gazetted list of 125 occupations that are trades (released on 1 July 2012); formed mini teams tasked with identifying and recording a list of workplace opportunities by 30 September 2012; and set the target for the development of a single detailed national database of all artisans. The National Artisan Development Support Centre (NADSC) was launched in the first half of 2013 at Ekurhuleni East TVET College in Kwa Thema, and a pilot project for the national artisan database has been set up there.[242]

The second major bottleneck in the development of artisans and technologists is considered to be the lack of a single guaranteed funding model for all artisan trades that is applicable to all sectors and includes a single, simple artisan learner administration and grant disbursement system.[243]

The third major bottleneck identified is the lack of an RPL system for artisans that focus on supporting persons who are working as support workers in the engineering field to become certified artisans. Towards alleviating this long-standing problem, the ADT-TTT has developed a detailed RPL model and system, which was piloted with NSF funds for 200 candidates in December 2011 and has established of a dedicated and full-time RPL unit within the DHET at INDLELA. The full system is set to be operational by 1 April 2013, after which it will be cascaded to the provinces.[244]

5.5.3 Pilot of the Apprenticeship Dual System of training

An additional mechanism of support for artisan development is the DSAP project. The merSETA has become an active participant in the DHET-lead Dual System Apprenticeship Pilot project (DSAP).

Dual System Apprenticeships provides a more efficient and effective platform from which to shape the development of competence of apprentices during their three year learning process. This initiative is supported by the Minister of Higher Education and Training through a special task team. The merSETA is part of this task team and has been supporting the DSA pilot project implementation since January 2013. The key point of delivery is through the TVET College supported by a measured College-Industry partnership. Participating Employers select their school leaving apprentice candidates and enter into a partnership with the TVET College for the provision of either the NCV curriculum or the noted curriculum with additional trade related components over the three year

[242] DHET (2013) Address by the Deputy Minister of Higher Education and Training, the Honourable Mr Mduduzi Manana, BHP Billiton Skills Development Summit, Date: 6 August 2013, Venue: CSIR ICC, Pretoria, http://www.skillssummit.co.za/presentations/2013/Mr_Mduduzi_Manana_speech.pdf, Accessed 30 October 2013.

[243] It is considered that the average annual cost to train an artisan is around R100 000 per learner. Under the proposed Annual Sustained Funding Model, SETAs and the NSF are to ring fence funds funding allocations per learner. The SETA grant per learner will be at least 41% (or R41 200 pa) while the NSF grant will be at least 5% (or R5 250 pa). Companies will qualify for a tax allowance to the value of 17% of learner training costs (or R16 800 pa) while the maximum employer contribution per learner is expected to be 37% of the total training cost (or R36 750 pa).

[244] DHET (2012) SETA CEO Forum ADT Sub-Committee report back to SETA CEO Forum, 30 May 2012.

period. Special time tables for classes are set so that the apprentice spends two days a week at the college and the remaining three days at the workplace. This is designed to link the two distinct skills sets of the teacher and the artisan.

This pilot project will run from July 2013 to June 2016. The first phase of registrations commenced in January 2014 with 42 apprentices selected by employers. Plans for Phase 2 of the project are currently under way.

5.5.4 Cost-Benefit-Quality (CBQ)

Apprenticeship training is seen as vital for economic development however, there are some concerns relating to the programme. The main concern regarding the apprenticeship model is the costs associated with its implementation. In an attempt to deal with this concern, the QRC (evaluation –tool) was developed by Bremen University's TVET research group and has been modified in order to fit the South African context. The innovative practice of CBQ is focused on the quality returns of in-company training as part of apprenticeship training[245]. In general, apprenticeships are not only seen as more expensive than learnerships, but it also takes much longer for employers to complete. Therefore learnerships have become the more attractive option. However, it is important to consider these two programmes in their totality and it needs to be known whether learnerships produce the same quality outputs than apprenticeships as the country's vision is to produce 30 000 artisans per annum.

Employers require a properly trained workforce to produce high quality products which are intended to compete in the competitive global economy. Therefore the CBQ is an effective tool that provides a scientific breakdown of the costs and benefits of apprenticeship training. The CBQ tool works as a questionnaire broken down into three sections:

1. Relates to company details (size and number of employees)
2. A breakdown of costs and benefits of in-company training
3. The quality assessment of in-company training

The CBQ tool also compares the average productivity of a fully skilled worker to the productivity of an apprentice. The degree of a fully skilled worker is regarded as 100%, against which the apprentice's productivity is measured. By the ability to compare the productivity of an apprentice and a fully skilled worker, the CBQ is useful to employers to evaluate the cost benefits of the apprenticeship training. It is too early to publish average costs or average benefits of in-company training offered by South African companies. With a total of less than 35 individual test cases completed thus far it is not possible to derive a general average value, which would reflect the prevailing situation correctly.

[245] merSETA CBQ(2014) Case studies submitted to ILO for sharing of best practices among SADC countries

Another important aspect the CBQ is the quality of apprenticeships; it evaluates several items that relate to the quality of professional competence development and the quality of the training process. The quality of apprenticeships is measured according to four inputs and two outputs. The input criteria consist of: (1) reflective learning in the workplace; (2) Professional level of training; (3) Autonomous/independent learning and (4) learning in business processes. The output criteria consist of (1) professional competence and (2) vocational commitment.

Findings from to two case studies done found that contrary to the calculus of educational economics, where a higher investment in the educational system suggests a higher quality of education, the experiences regarding the practical part of technical and vocational education and training show that a high quality of in-company training can also lead to better cost-benefit rations, i.e. to superior cost-effectiveness[246].

As an innovative practice the CBQ tool is an instrument that could bring the following benefits:

- For the merSETA, the instrument could be used to build partnerships that lower costs associated with teaching and learning.
- Potential partnerships around sharing provision platforms to reduce duplication.
- Benchmarking practices to act as guide for systems improvements.
- Cooperation in workplace rotation to cover aspects of the curriculum more efficiently.
- QRC is anticipated to benefit the South African Skills development system in various ways. Employers will be able to explore the possibilities of improving productivity of apprentices; it will be likely to understand the training costs related to candidates entering an apprenticeship with different pre-apprenticeship qualifications and to relate general cost benefit results (Rauner et al, 2012: 87).
- Innovations in apprenticeships will be achieved with a focus on quality and improved profitability.
- Technical & Vocational Education and Training (TVET) Colleges can benefit from the information gathered by the QRC database; their curricula can be benchmarked against those of private training providers.
- With CBQ, it is quite easy to receive an overview on the strength and weaknesses of in-company training and to find ways to improve their methods (Brown and Huaschildt, 2014: 5).

In order to take the work on the CBQ tool forward the merSETA is supporting a few South African students to pursue PhD studies at the University of Bremen; this will widen the knowledge base on the apprentice training ecosystem[247].

[246] merSETA (2014) case study on Innovative Practice submitted to the ILO for sharing of best practices among SADC countries

[247] merSETA CBQ(2014) Case studies submitted to ILO for sharing of best practices among SADC countries

5.5.5 Research in support of artisan development

The merSETA regularly commissions research projects in order to understand the challenges facing artisan development in more detail. These studies form part of the merSETA's system of self-assessment and of understanding the impact of its various skills development programmes.

In September 2012 the results of the AATP Post Trade Test Tracer Study were released. This study interviewed 400 artisans that had qualified through the AATP and a further 100 that qualified through the four-year apprenticeship programme (control group). Some of the interesting findings include:[248]

- A greater proportion of CBMT apprentices pass their trade test at first sitting compared with Time-Based apprentices
- A greater proportion of AATP artisans pass their trade test at first sitting compared with the control group
- There is no significant difference in respect of passing the trade test at first sitting between N3, N4, N5, N6 and Matric graduates, but the proportion of N2 graduates passing their trade test at first sitting was very low
- More CBMT artisans are permanently employed than Time-Based artisans
- More control group artisans are permanently employed than AATP artisans
- Limpopo, the Eastern Cape and Mpumalanga are the highest absorbers of AATP artisans
- Riggers, Fitters, Millwrights, Mechanics, and Fitters and Turners are more likely to be employed

The next round of the Tracer Study due to commence in the third quarter of 2014 will trace learners after having completed training on learnerships, apprenticeships and skills programmes.

The shaping of apprenticeship competence development and related efficient funding models for vocational training has also remained a flagship research priority for artisan development. Previous research published through the University of Bremen (I: BB) has entered a second phase to establish a hybrid system of competence development measurement in support of industrial competitiveness and cost efficient training systems. This second phase of research includes a Doctoral Scholarship programme that aims to transfer associated knowledge into the South African TVET ecosystem.

merSETA is also in the process of initiating a new dialogue with the aim of developing a sustainable, systemic and scalable artisan development plan for SA. A concept paper[249] has been drawn up which places the need for artisan development within both the local economic and social contexts, and outlines the present artisan development

[248] merSETA (2012) AATP Post Trade Test Tracer Study, 20 September 2012.

[249] merSETA (2013) Towards a Sustainable, Systemic and Scalable Artisan Development Plan for South Africa, Concept Paper, Draft Version, June 2013.

landscape and challenges. Using a social innovation approach the research aims to unpack the following subsystems in an effort to understand the complexity of the challenges and develop possible solutions:

- Policy and planning subsystem
- Administrative and institutional delivery subsystem
- Technical support subsystem
- Social mobilisation subsystem
- Curriculum development subsystem
- Teaching-learning subsystem
- Post-qualification subsystem

5.5.6 Recognition of prior learning (RPL) and ARPL (Artisan focused RPL)

Recognition of Prior Learning (RPL) has received specific attention during the NSDS lll financial years. SAQA played a lead role in the revision of the National RPL Policy, approved by the SAQA Board in 2013. During this period, a development phase was also started with a cluster of related policies, inclusive of the Credit Accumulation and Transfer (CAT) Policy, assessment and articulation. In principle, the cluster of policies all supports the notions of access, redress and transformation and provided the national concepts and frameworks for RPL and related work at NQF sub-framework and specific context levels, e.g. RPL policies of the QCTO and Umalusi.

The merSETA was active in the policy committees and providing feedback and comment on drafts, based on actual experience in the merSETA-specific RPL project that closed out in March 2013. In this particular project, the Chambers had the oversight roles and steered the dedicated project to increase RPL activity in sub-sector contexts. Across the Chambers a total of 181 learners participated, 45 from Metal, 17 from Auto, 11 from Plastic, 19 from Motor and 89 from the Tyre Chamber. The chart below, in Figure X shows the chamber relationships.

Subsequent to the dedicated project that closed out in March 2013, the merSETA's Accounting Authority approved a proposal for another dedicated RPL project. At this point, context-specific RPL models started to manifest, specifically what has become known as the ARPL model (artisan-focused), developed by Dr. Florus Prinsloo and his colleagues at INDLELA. In support of the national ARPL developments, merSETA and NUMSA started to collaborate in the more detailed exploration of the concepts and the ideas contained in the ARPL model. Subsequent to the total repeal of the Manpower Act 56 of 1981, including Sections 13 and 28 of the Act, the ARPL route will replace what was previously known as "Section 28" trade-testing.

The "Section 28" artisan route was a process that could be equated to RPL in the broader sense and contributed to the trade-tested artisanal pool of manufacturing, engineering and related services workers, as well as in various other economic sectors. However, in some sectors there appeared to be issues in employing these "Section 28"

artisans. In the figure below, the graph represents "Section 28" trade tests, which shows a steady increase from 2007 to February 2014.

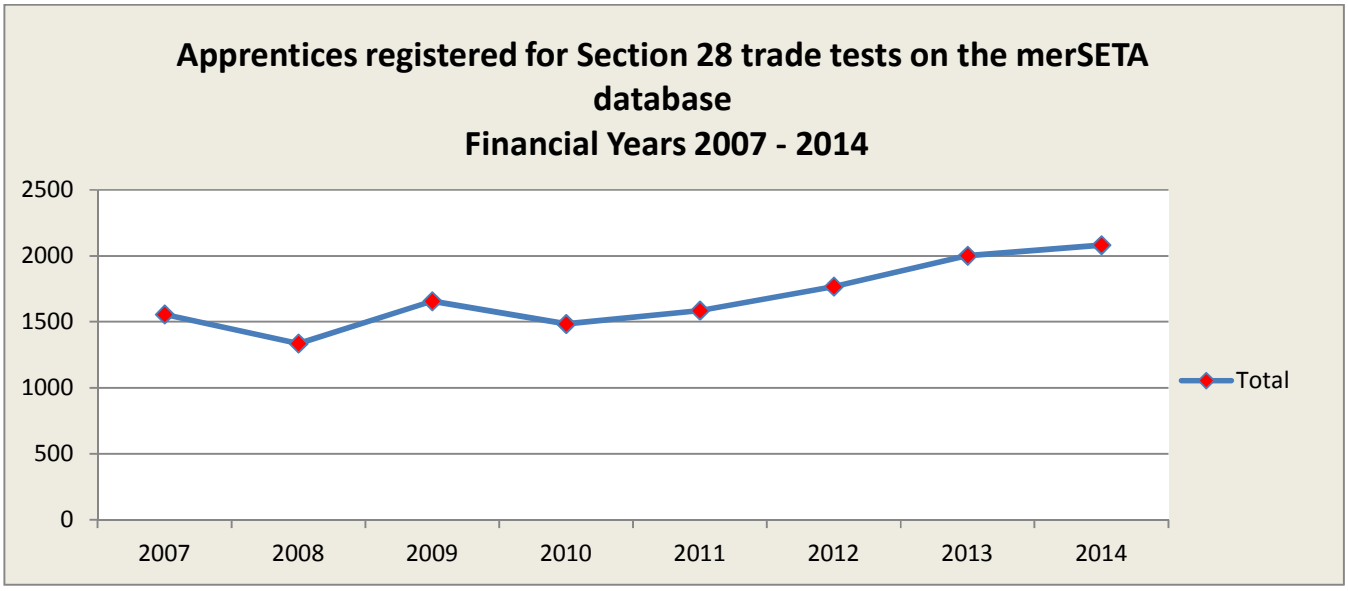

Figure 5-12 Apprentices registered for Section 28 trade tests on the merSETA database Financial Years 2007 - 2014

Source: merSETA Seta Management System 2007-2014

As stated, the ARPL model is in a concept phase and various aspects or intervention areas in the model is currently explored, inclusive of the notion of Technical Evaluation Panels and ARPL advisors. The ARPL model is based on a non-sector-specific approach and makes provision for various target groups to register for the proposed ARPL process. During the transition phase (the phase subsequent to the "Section 28" process and the implementation of a fully-fledged ARPL model), transitional arrangements are in place. During the transition phase the criteria for the application for a trade test have been communicated by the Department of Higher Education and Training.

5.6 MERSETA SUPPORT FOR OTHER ASPECTS OF GOVERNMENT'S DEVELOPMENT AGENDA

The interventions discussed above relate to the critical issue of training artisans for the merSETA sector and the wider SA labour market. This section links merSETA's activities to the wider social and economic development agenda aimed at creating greater equality in terms of access to quality education and employment. In the process some additional interventions are highlighted.

5.6.1 The dti/merSETA MOU in support of IPAP

Although, broadly speaking, all the initiatives mentioned above tie in with and support Government's objectives set out in IPAP, the merSETA and the dti have signed a Memorandum of Understanding (MoU) which binds both parties to certain responsibilities in respect of four key areas: unemployed graduate work experience; artisan and technician development; support for enterprise incubators, small and micro enterprises and co-operatives; and the development of a skills strategy specifically to support the SEZ policy. The below provides a detailed summary of the purpose of each of these four areas, as well as the responsibilities that are to be undertaken by the dti and merSETA respectively.

[i] BER Manufacturing Survey: Quarterly Analysis of manufacturing activity, Second Quarter 2014, vol. 29 no. 2

Area of Cooperation	Purpose	dti Responsibilities	merSETA Responsibilities
Unemployed Graduate Work Experience Programme	Provision of placement opportunities in dti-supported companies, through partnership with Productivity SA, DoL, and SA Graduate Association. The establishment of a SETA network to provide support for this through the funding and recruitment of unemployed graduates and undergraduates. For the foundry sector this will be part of experiential learning for their qualifications.	• To provide placement opportunities. • To co-fund the programme. • To cover 50 per cent of the intake for each financial year.	• To co-fund the programme. • To cover 50 per cent of the intake for each financial year. • To assist in the recruitment of unemployed graduates.
Artisan and Technician Development	Collaboration on the development and funding of internationally comparable skills support programmes and curricula in specific trades and technical specialisations that are key to achieving IPAP sector objectives. Best practice models may be supported and funding for mainstreaming in the formal education and training system. From time to time new areas may be identified for further development.	• To collaborate with its industry to identify specialised occupations relevant for IPAP. • Where appropriate to co-fund seed funding for initial development and consultation purposes. • To collaborate with merSETA in the accreditation and mainstreaming of relevant programmes. • To leverage existing incentive mechanisms to promote the provision of workplaces for skills training.	• To co-fund the dti's artisan training programmes. • To assist with the accreditation of NTI and NFTN programmes and courses, and others that may be identified from time to time.
Enterprise Incubators, Small & Micro Enterprise and Co-op Support	Provision of customised skills support to the workforces and owners of small and micro enterprises and co-operatives and incubators in receipt of dti incentives. It is intended that this support form part of the dti's pipeline of financial and non-financial support to ensure sustainable growth, and broadening the participation of historically disadvantaged groups in the manufacturing sector.	• To assist in the identification of skills needs among target groups including incubators, incubator managers, SMEs, co-operatives and Centres for Entrepreneurship (TVETCs and universities) and Incubator Centre Managers. • To provide information and data on enterprises from the dti databases. • To collaborate on the standardisation and benchmarking of training courses from an industry perspective.	• To develop and fund customised skills support programmes for targeted clusters of small enterprises and co-op development. • To collaborate on the development of a customised post-school qualification for incubator managers that is benchmarked against that of competitor countries. Managers require post school training on technical issues specific to each sector, financial management training and business skills training. • To collaborate on joint proposals to the Jobs Fund and/or the NSF
Special Economic Zones (SEZ) Skills Strategy	Development of a skills development co-operation model to support local and provincial governments, SEZ boards and implementing agencies in the development and integration of customised skills development strategies in each SEZ. Saldanha Bay IDZ can be used to pilot a framework for the development and instiutionalisation of an SEZ Skills Development Strategy. A dti-lead Skills Task Team (including local and provincial governments, DHET, merSETA, local education institutions, business and labour) will develop a skills strategy for inclusion in the Master Plan of the SEZ application.	• To facilitate and organise stakeholder planning and collaboration. • To consult with relevant stakeholders on funding option and ensure that the SEZ Incentive Guidelines will include the support of skills development. • To collaborate in the development of the framework for identifying skills relevant to the sustainability and growth of SEZ programmes.	• To provide technical assistance for skills planning. • To provide Training Provider capacity-building, support and accreditation to ensure an adequate candidate learner pipeline for the skills development strategy. • To co-fund identified training interventions. • To facilitate cross-sectoral collaboration with relevant other SETAs. • To provide monitoring, support and quality assurance of training.

Table 5-5 Summary of the dti/merSETA MoU in support of IPAP

Source: the dti/merSETA (2012), Memorandum of Understanding

5.6.2 Placement of unemployed graduates in the labour market

One of the deficiencies in the South African labour market is the fact that there are unemployed graduates while at the same time, there are skills shortages – especially shortages of people with high-level skills. This is one of the main reasons for the inclusion of this area of co-operation in the dti/merSETA MoU as outlined above.

In addition to this, the merSETA is in the process of developing a strategy to ease the way of new graduates into the labour market. This strategy, which took shape in the 2012/2013 financial year and will be rolled out over the next few years, includes:

- The development of an employability model for graduates.
- The development of a graduate placement tracking tool.
- A national intern research programme.
- A report and recommendations on the tracking and review of skills required for interns to succeed in the labour market.
- A report and recommendations on the programmes offered by HEIs to prepare students for job readiness.
- A report and recommendations on the effectiveness of the logistical organisation and management of internships by host establishments.
- Career Guidance and Advice, including work readiness support.
- Relevant and useful data on interns and host establishments.
- A minimum of 200 graduates placed per annum in the merSETA Sector.

Also notable with regards to the placement of unemployed graduates in the workplace, are the changes in SETA Funding Regulations that were gazetted in December 2012 and came into effect in April 2013. Mandatory Grants will drop from the previous 50% of SDL paid by employers to 20% thereby increasing the amount available for Discretionary Grants. Into the future 80% of Discretionary Grant funding will be allocated to PIVOTAL (Professional, Vocational, Technical and Academic Learning) programmes which result in qualifications or part qualifications in identified scarce and critical skills. Preference will also be given to training undertaken by public universities,

universities of technology and TVET colleges. Furthermore, work integrated learning and workplace training will form a key focus area of Discretionary Grant funding.[251]

5.6.3 Support for the Special Infrastructure Projects (SIPs)

A major concern for government is that sufficient skills will be available in the SA labour market to support the SIPs. A SIPs Scarce Skills List has been disseminated to SETAs who have been asked to indicate which of these they can contribute to developing. The correlation between this list and the Priority Skills identified by merSETA is discussed in more detail in Chapter 6 of this SSP.

While the SIPs are government-driven, the actual projects will be implemented by the private sector and awarded through a tendering process. Sufficient skills are thus needed by the SA private sector, whose scarce skill requirements directly feed into the SSP process. It is thus unsurprising that the list contains a variety of engineering, engineering technician and trade qualifications that the merSETA is already supporting.

The SIPs however also offer a significant opportunity for providing the workplace training component of many technical and trade qualifications, as well as the workplace exposure and experience that new graduates need in order to increase their future employability. In line with this, government has indicated that tenders may include an allocation of funds to cover such related training costs. SETAs, which will be providing PIVOTAL grants for similar types of skills development programmes, will have the responsibility to monitor that companies are not receiving funds from both sources for the same group of learners. To this end the merSETA have made specific skills commitments for SIPs and these will be monitored and tagged on the merSETA SMS system so that the SETA is able to account for the direct SIPs support in 2014 and beyond.

Government is also planning the development of a SIPs Skills Portal that will allow companies to advertise their skills needs, and thus assist in matching skills for unemployed graduates in particular with new employment opportunities.[252]

[251] RSA (2012) The Sector Education and Training Authorities (SETAs) Grant Regulations Regarding Monies Received by a SETA and Related Matters, Government Gazette, 3 December 2012.

[252] Dr. Adrienne Bird (2013) PICC, interview 1 July 2013

5.6.4 merSETA as Development Quality Partner (DQP) for the QCTO

According to the requirements of the newly operationalised QCTO, the merSETA is assisting the NAMB in the development of QCTO-aligned artisan trade qualifications and curricula. Collectively the work being done in support of this is referred to as "the merSETA Improved Qualifications Projects". QCTO curriculums, which are intended to standardise the quality of trade education, will in the future be used by all training service providers in developing their programme courseware.[253]

MerSETA formally applied to become the Assessment Quality Partner for three recently developed occupational qualifications, and continued with its responsibilities as a Development Quality Partner (DQP) during the2013/14 period. A total of 913 accreditation visits, 1 119 moderations and 86 audits of accredited training providers were carried out to ensure that merSETA's quality standards are adhered to and maintained. The occupational qualifications developed during the period of reporting totalled 31.

5.6.5 merSETA partnerships with the TVET college sector

The merSETA currently has partnerships and/or projects in a total of 25 TVET colleges across the country. This number is up from 15 in the past year. The focus of the majority of these projects for the merSETA is the provision of access to, and carrying the costs associated with, work-integrated learning.

The Minister of HET indicated in his 2012 budget vote speech that SETAs must open offices in all 50 public TVETs in order to be present in specific areas as well as to provide a service to the community. merSETA will have two staff members at each of the TVET colleges for which it is deemed to be the lead SETA, and will represent all SETAs through this office. The aim of these offices will be to support career guidance for young TVET entrants, as well as to facilitate a seamless transition from institutional learning to work-integrated learning opportunities. The merSETA is continuing with the implementation of this mandate[254] and is designing an instrument that measures college-industry partnerships, in an effort to maximise SETA-TVET relationships.[255]

[253] Dr. Florus Prinsloo (2012) NAMB, interview, 9 July 2012.

[254] Through 2013, merSETA established an office at the rural Lovedale FET College in the Eastern Cape. Source: merSETA (2013) Annual Performance Plan, 20 August 2013.

[255] Helen Browne (2012) merSETA.

5.6.6 merSETA engagement with other national policy directives

The merSETA is actively involved in engaging government in the development and implementation of new polices related to skills and human resource development.

NSDS III aims to open up opportunities for skills training for people experiencing barriers to employment caused by various forms of physical and intellectual disability. As such, merSETA has developed a Programme Charter for Persons with Disabilities. The deliverables for Phase 1 of the charter include the identification of those forms of disabilities that could most successfully be integrated into learning and employment opportunities within the various merSETA subsectors, and the development of strategies that will facilitate the process of implementation.[256]

NSDS III encourages support for NGO and community based co-operatives as a means of addressing poverty in South Africa. As such merSETA was involved in a NGO support programme over the period 2009 to 2013. An external evaluation of the programme was recently conducted and the findings of this report will be considered in the development of future programmes with similar objectives.[257]

NSDS III also places a focus on racial and gender transformation in respect of both access to training and employment. merSETA's Grants Policy document, which is updated on an annual basis and which outlines the criteria on which Discretionary Grant funding is awarded, states that firms need to consider these transformation imperatives in their proposals for funding support.[258]

As referred to in numerous places in this SSP, merSETA is acutely aware of government's rural development agenda. Despite the largely urban concentration of merSETA companies, the sector has identified the need to support the development of skills in and for the more equitably distributed motor servicing and sales subsector. merSETA's Retrenchment Assistance Programme (RAP) has also had a rural reach: the programme seeks to provide retrenched workers with skills that can be used to generate a livelihood in their own communities (many of which are rurally based). In addition to this, merSETA has slanted the focus of its SET project (which now includes an alignment for learners in the programme with opportunities at TVET and HET levels) towards non-urban schools. Finally, the outputs of merSETA companies form critical inputs into particularly the physical aspects of rural development projects. Thus by supporting the sustainability of the manufacturing,

[256] merSETA (2012) Programme Charter: Persons with Disabilities (June 2012, Version 2).

[257] merSETA (2013) External evaluation of the merSETA NGO support programme for the period 2009 to 2013, inclusive of recommendations for future programmes, October 2013.

[258] See Section 6.3, merSETA Grant Policy document, revision of 28 August 2013.

engineering and related services sector through the provision of relevant skills, merSETA is indirectly also supporting rural development.

In line with the King Report on Corporate Governance for South Africa 2009 (King III), which emphasises the centrality of sound environmental governance to corporate and urban sustainability, the merSETA started work on a draft Sustainable Green Skills Development Framework for the sector in 2012. Themes that are likely to be included in the draft cover: a research agenda aimed at assisting companies in reducing their carbon footprint; the inclusion of 'green' skill sets in existing and new qualifications, curricula and learning support materials; the promotion of clean and lean manufacturing, as well as waste reduction and recycling; the promotion among youth and rural communities of 'green' skills and 'green' jobs; and investigating the possibility of establishing a discretionary grant funding window for renewable energy and sustainable 'green' skills development.[259]merSETA stakeholders will have the opportunity to engaging with proposals contained in the draft framework. Related to the issue of sustainable green skills development, merSETA's Motor Chamber research project for 2012/13 identified the Green Agenda as one of the major drives of change for the auto industry, and a factor that needs to be considered in terms of its impact on existing training curricula as well as on the requirement for new sector skills.[260] A consulting process is under way through the committee and stakeholder systems within the merSETA to start to identify emerging skills requirements in the "green space".

The merSETA has also provided the DHET with a detailed response to its Green Paper on Post-School Education and Training. One of the overarching areas of concern relate to the relative lack of attention given to the role and coverage of workplace-based- and work-integrated learning, which are both critical components of occupational qualifications, particularly in technical and vocational education and training. Another area of concern raised by the merSETA is the Paper's renewed pre-occupation with access over success, and the sector argues that this is not only a waste of valuable resources, but is socio-economically unacceptable. Upon the release of the White Paper on Post-School Education and Training in November 2013, there has been renewed emphasis on the role played by SETAs specifically with regard to improving data supply and supporting education and training in the workplace based on empirical evidence from credible skills planning processes and procedures. merSETA has committed itself to fully supporting the DHET and the QCTO in the

[259] merSETA (2012) Draft 1: Sustainable Green Skills Development.

[260] merSETA (2013) Motor Research Project: Employment and Educational and Skills Audit of the merSETA Motor Chamber.

implementation of a more coherent post-school education and training system that is focused on employability and is informed by citizenship and lifelong learning.

5.7 FACTORS THAT INFLUENCE THE SUPPLY OF SKILLS TO THE SECTOR

Now that all the various aspects of skills supply into the merSETA sector have been considered, it is necessary to include a more focused discussion on the issues facing the supply of technical skills to the sector and the quality of that supply. The first part of this section looks at the range of challenges that affect the supply of engineering skills and technical skills to the merSETA's industries. The second part considers the various initiatives for improving occupational qualification development and quality assurance.

5.7.1 Challenges with the supply of technical skills to industry

Increasing the supply of engineering skills from higher education institutions is constrained by a host of factors. Enrolments are impacted on by the relatively limited availability of eligible school leavers with good grades in maths and physical science. Added to this is the pressure to increase admission levels, which results in reduced throughput rates. These reduced rates are due not only to the fact that many school leavers are ill-prepared to deal with tertiary education standards but also to the reality that many students struggle to access adequate study finance. High dropout rates translate to the inefficient use of national human and financial resources. Additionally, many engineering faculties are struggling to maintain the current growth rates. Increases in enrolments have not yet been accompanied by increased funding from the DHET. Within this context, the higher education system is not able to respond to massive increases in demand for engineering skills. [261,]

In respect of artisan training, the challenges are multifold. There are currently four different routes to becoming an artisan in SA and no indication at this stage that there will be any form of rationalisation in the near future. These routes have different levels of exposure to theory and practical knowledge and result in differing quality of graduates, even within the same trade. From 2007 the N1 to N3 theoretical courses were replaced by the NCV. Industry criticism of the NCV (the learnership route) has included: its inflexible nature that does not allow for part-time students; an inadequate content base for trade testing in engineering; and curricula that are not aligned to

[261] Case J M (2006) Issues facing engineering education in South Africa, paper presented at the 3rd African Regional Conference on Engineering Education, Pretoria, September 2006, http://www.aeea.co.za/i/i//ARCEE3.pdf, Accessed 12 March 2012.

industry needs. Industry calls for the NATED programmes for artisan training to be revitalised[262] were eventually heard by the DHET with the reintroduction of these courses in early 2011.[263] These factors, together with the fact that some SA artisan qualifications are no longer recognised internationally, have called into question curriculums and current assessment and quality assurance practices. In December 2010, the Minister of Higher Education and Training admitted that the current SETA processes had "resulted in a variety of confusing approaches to artisan development".[264]

Another component to the challenge of increasing the number of artisans in training in industry is the fact that over the past few years, the rules and regulations surrounding the concept of an apprenticeship have been tightened drastically. They currently have the defined status of an employee[265] requiring a contract of employment,[266] conforming to both the Labour Relations Act and the Main Agreement[267] of the MIBCO.[268] In addition, because they are defined as learners, they require a finding from the employer based on a disciplinary sanction as well as consent from the relevant SETA, before termination or variation of the learner's contract is possible. Operationally, businesses that run apprenticeships are having great difficulty attracting learners and, once these are placed, find a general lack of motivation and commitment to the programme by learners, which results in a lack of discipline through poor time-keeping, low attendance in general, and

[262] Jet Education Services (2010) Document for Discussion: Challenges Facing the FET College Subsystem, FET round table, 9 April 2010, http://www.jet.org.za/events/fet-college-round-table-and-summit/reports, Accessed 10 March 2012.

[263] See for example the courses offered by Technisa, http://www.easyinfo.co.za/htm/custom/technisa/ncourses.htm, Accessed 10 March 2012.

[264] Sabinetlaw (2011) National Artisan Moderation Body Launched, 2 December 2010, http://www.sabinetlaw.co.za/education/articles/national-artisan-moderation-body-launched, Accessed 22 September 2011.

[265] Section 200A of the Labour Relations Act, 1996: Until the contrary is proved, a person who works for, or renders services to, any other person is presumed, regardless of the form of the contract, to be an employee, if any one or more of the following factors are present:

a) the manner in which the person works is subject to the control or direction of another person;

b) the person's hours of work are subject to the control or direction of another person;

c) in the case of a person who works for an organisation, the person forms part of that organisation;

d) the person has worked for that other person for an average of at least 40 hours per month over the last three months;

e) the person is economically dependent on the other person for whom he or she works or renders services;

f) the person is provided with tools of trade or work equipment by the other person; or

g) the person only works for or renders services to one person.

[266] Section 18 of the Skills Development Act, 1998.

[267] Aruna Ranchod, Director at RMI: "The Main Agreement for the Motor Industry deals with wages and conditions of employment [and] applies to learners and apprentices as it does for other employees, insofar as they do not conflict with the provisions of Chapter IV of the Skills Development Act. Specific rates of pay are stipulated in the Main Agreement in respect of Apprentices and learners."

[268] Owing to a Main Agreement, the Basic Conditions of Employment Act, 1997 does not apply.

unwillingness to learn. The effect of this perceived over-regulation is not greater protection for the apprentice (as was intended) but rather far fewer employment opportunities.[269]

5.7.2 Initiatives to improve occupational qualification development and quality assurance

A problem with the NQF established in 1995 was that it envisaged one framework that would include all qualifications – those at general education and higher education levels, as well as occupationally directed qualifications. Responsibility for the quality assurance of occupationally directed qualifications lay with the SETAs and other professional bodies registered as Education and Training Quality Assurance bodies (ETQAs). The progressive result has been: a variation in quality and scope of similar qualifications developed and quality assured by different SETAs; a proliferation of memoranda of understanding (MoUs) between the various SETAs as firms sought to support training in qualifications not registered with their specific SETA; an overlap of quality assurance requirements; and generally increasing levels of frustration felt by firms and training providers about bureaucratic delays and increasing costs associated with skills development and qualification accreditation.[270]

The National Qualifications Framework Act (Act 67 of 2008 with effect from December 2010) revised the original NQF in a couple of key ways. One way was by moving from eight to ten levels, and the second was by adding a third sub-framework – the Occupational Qualifications Framework (OQF) – to the existing group consisting of the General and Further Education and Training Qualifications Framework (GFETQF, overseen by Umalusi) and the Higher Education and Training Qualifications Framework (HETQF, overseen by the Council on Higher Education (CHE)).[271]

The OQF operates in parallel with the other frameworks, at all levels of the NQF, and is set to be overseen by the QCTO. The QCTO officially came into being on 1 April 2011, and is now in the early phases of its operation. [272, 273] The QCTO is responsible for establishing and maintaining NQF-

[269] This section, along with its footnotes, was extracted from: merSETA (2012) Apprenticeships: Review and opinion on the possibility of lobbying for a change to the current rules surrounding apprenticeships in an effort to create more employment in the sector, Version 3.

[270] DHET (2011) QCTO Update: Presentation to the HET Portfolio Committee, 23 February 2011, http://www.skillzhub.co.za/articles/QCTO_Update23022011.pdf, Accessed 22 September 2011.

[271] Republic of South Africa (2008) National Qualifications Framework Act 2008, http://www.saqa.org.za/docs/legislation/acts/2010/act67.pdf, Accessed 10 March 2012.

[272] SAQA (2012) The QCTO introduces its CEO, http://www.saqa.org.za/docs/qcto/conf2012/qcto_ceo.pdf, Accessed 16 July 2012.

[273] QCTO (2013) http://www.saqa.org.za/show.asp?include=docs/qcto/index.html, Accessed 17 July 2013.

registered occupational standards and qualifications and for quality assuring these standards and qualifications, as well as learning in and for the workplace.[274] As of September 2012, the QCTO has taken over the final responsibility for quality assurance from the current group of ETQAs.

The aim of the QCTO is to ensure consistency across occupational qualifications regardless of the economic sector in which the qualification was obtained or the learning route that was used. As such, it is hoped that qualifications developed under the QCTO will be fit-for-purpose and meet industry's demands in respect of both scope and quality. This is to be done by using communities of expert practitioners in the development of qualifications and by introducing externally standardised assessments for each occupation. The intention of the occupational qualifications is to qualify people for a specific occupation rather than in a field of learning.[275]

While the clarification of roles and responsibilities between the QCTO and other bodies involved in the skilled development and quality assurance areas is likely to be an ongoing process over the first few years of its operationalisation, some clarity has emerged over the past year: The QCTO has officially delegated to MerSETA the function of quality assurance of all NQF qualifications that are currently within its scope of coverage. merSETA currently accredits providers; monitors provision; conducts external moderation of the accredited provider's assessments; and makes recommendations on the issuing of certificates of successful learners.

The QCTO will have a substantial impact on the landscape of occupational skills development and, if successful, will improve not only the quality of trade and occupational qualifications, but also the ability of these qualifications to react to industry needs. Furthermore, if challenges related to bureaucracy and the costs of training are reduced, the system may encourage greater participation of employers in workplace-based skills development initiatives.

[274] DHET (2011) QCTO Update: Presentation to the HET Portfolio Committee, 23 February 2011, http://www.skillzhub.co.za/articles/QCTO_Update23022011.pdf, Accessed 22 September 2011.

[275] NQF (2011) http://www.nqf.org.za/page/faq/qcto/index, Accessed 22 September 2011.

NAMB was launched by the Minister of Higher Education and Training in December 2010. NAMB is now located at INDLELA, within the DHET. The functions of the new body are to:[276]

- Monitor the performance of accredited trade test centres
- Moderate artisan trade tests
- Develop, maintain and apply a national database of instruments for assessing and moderating artisan trade tests
- Develop and maintain a national database of registered artisan trade assessors and moderators
- Record artisan achievements
- Attend to appeals against assessment decisions
- Make recommendations to the QCTO on the certification of artisans

In respect of the trades, the NAMB has been established in order to co-ordinate artisan development and be the QCTO's Assessment Quality Partner (AQP) for these occupations. One of NAMB's first tasks was to develop the approved National List of Artisan Trades, which was published on 1 July 2012. The list includes 125 occupations, which are linked to Version 2012 and 2013 of the OFO. In line with these occupations, QCTO-aligned qualifications and curricula need to be developed, which, once registered, will serve as the basis of occupational learning regardless of the learning route. merSETA has already entered 13 service level agreements to serve as the Development Quality Partner (DQP) for the conversion of existing qualifications into QCTO-compliant qualifications.[277]

NAMB has effectively acted as the Chair for the Dual System Apprenticeship Programme Steering Committee and in the process brought together the various SETAs that could add value in testing this learning pathway through TVET colleges. This process has encouraged a new level of cooperation between SETAs (including the merSETA) that has not yet been accomplished before.[278]

merSETA is thus currently actively involved in all policies and procedures being developed by the NAMB. The accreditation of Decentralised Trade Test Centres and the quality assurance responsibilities regarding trade testing and certification are being conducted by merSETA on behalf

[276] Sabinetlaw (2011) National Artisan Moderation Body Launched, 2 December 2010, http://www.sabinetlaw.co.za/education/articles/national-artisan-moderation-body-launched, Accessed 22 September 2011.

[277] Christo Basson and Naphtaly Mokgotsane, merSETA, interview, 6 July 2012.

[278] Helen Brown, merSETA, input via email, 24 July 2013.

of NAMB. merSETA also serves on the steering committee of the Artisan RPL division of NAMB and the pilot for this will be implemented shortly. It appears at this stage that the expected new policies related to the functioning of the QCTO and NAMB will retain some form of partnership and/or delegation.[279]

Importantly, the introduction of the QCTO and the NAMB has no bearing on the four current routes to becoming an artisan. Thus the Apprenticeship route, Learnership route, 'NCV plus' route, and the RPL route will continue to operate. The only difference will be that once the new QCTO-compliant qualification is registered, all routes will be required to train towards and meet the new curriculum standards. And while the NAMB envisages that in the longer-term future all trade qualification moderators and assessors will be registered as its employees, in the shorter term the role of the SETAs in terms of training moderation and assessment is still opaque.[280]

While all these changes and initiatives are positive, the current challenge for skills development, particularly for workplace-based occupational qualifications such as apprenticeships and learnerships, is that the system is in an almost constant state of flux and many of the recent initiatives to simplify procedures and improve quality still have to be operationalised. The benefits will only become evident in the next few years. The result is that much confusion exists at industry level regarding processes and procedures and much doubt remains as to whether sufficient numbers of competent artisans can be generated. For its part, the merSETA's Strategic Plan commits the organisation to fully supporting the QCTO.

5.8 CONCLUSIONS

Large-scale workforce downsizing occurred within the merSETA sector as a result of the economic recession in 2008 and 2009 – some a direct result of the sudden loss of demand and some as a result of exacerbation of trends related to more structural challenges facing the sector. Overall, the merSETA sectors lost an estimated 109 700 jobs at that time, with some evidence that retrenchments continue to affect the sector. Despite the fact that some of these workers have been re-absorbed into the sector since then, the QLFS of March 2014 found that 33 000 jobs were shed year on year in the first quarter in the manufacturing sector and a significant percentage (more than a quarter of a million) of unemployed workers had previously worked in the manufacturing sector. While it is acknowledged that unused skills atrophy over time and that technology (and thus the

[279] Christo Basson, merSETA, input via email, 29 July 2013.

[280] Dr Florus Prinsloo, NAMB, interview, 9 July 2012.

skills required to engage with it) continues to advance, unemployed workers are nevertheless and important part of the pool of skills available in the country.

With respect to the supply of new skills to the sector, there has been substantial growth in the numbers of new graduates from universities and universities of technology in engineering fields most relevant to the merSETA sectors between 2001 and 2011. Electrical engineers form the largest component of the output of first national diplomas among the relevant group of qualifications but in respect of first degrees, was overtaken in 2011 by the output of mechanical engineers. In terms of the output for national diplomas, the average annual increase was greatest in industrial engineering (15.5%) and followed by metallurgical engineering (13.2%) (albeit off very low bases), while the growth in degrees awarded over the past decade has been strongest for metallurgical engineering (10.8%) and industrial engineering (9.9%). Despite these positive growth trends, increases have not yet been sufficient to meet the needs of the national economy and future growth will have to be supported through a variety of initiatives. These include: bridging programmes to promote access and success; increased physical and teaching resources to engineering departments; and programmes that promote workplace-training opportunities for students from the universities of technology.

The output from the GET is important for the merSETA sector in two key ways: first in respect of the supply of adequate numbers of graduates with good quality maths and physical science passes as a feeder for the development of sufficient numbers of engineers and technologist (at HET level) and artisans (at TVET level); and second in respect of the education levels (and thus the training potential) of the general workforce that enters the sector without previous training. In both these areas the quality of the output from GET is of concern. And while the new skills contribution of the TVET sector has traditionally been very limited, government's determined focus on increasing both the quality and quantity of output from TVET colleges means that this sector is likely to play an increasingly important role in skills development of the merSETA sector into the future.

merSETA's Programme Charter for Persons with Disabilities (PWD) pulls together under one umbrella all its various programmes that are aimed at developing skills among this group of people for employment within the sector. If merSETA companies are to reach national Employment Equity targets for the proportional employment of PWD then it will be important for the merSETA to encourage new sector-focused skills development among potential disabled employees, as well as re-training and accommodation strategies in order to support the retention of employees who become disabled.

The merSETA has a wide range of activities that support the training and development of the current workforce: The development of management and supervisory skills in the sector is critical, as this group of employees needs to provide the sector with leadership and direction. In the future, the FLC, which will be a requirement for attaining an occupational qualification at NQF levels 3 and 4, will provide additional information on the potential availability of skills for the merSETA sector. Finally, a substantial number of people at merSETA companies benefited from attending short courses in 2012/13. However, the importance of the provision of experiential training for 2 009 individuals with mainly technical qualifications, and the support for Continuous Professional Development (CPD) for 27 269 individuals cannot be under-estimated.

merSETA's major focus in respect of new skills development and the alleviation of skills shortages is the development of artisan skills. To this end, merSETA has a wide spectrum of registered learnerships and apprenticeships in place. Uptake of these training programmes is significant and the merSETA has consistently surpassed its targets for both registrations and achievements. Furthermore, both systems appear to be showing some signs of maturing. Since its inception in November 2001 the merSETA has registered over 63 000 apprentices on apprenticeships and more than 57 000 learners on learnerships. In the same period a total of over 36 000 apprentices qualified as artisans in the sector and another 33 000 learners successfully completed their learnerships.

Contributing to the high success rate in artisan development is the merSETA's AATP, which is promoting the development of artisan skills in the metal- and motor-related trades. Using this tool, the merSETA aims to qualify 20 000 artisans over the period 2011/12 to 2015/16, a figure that is considered realistic if sufficient funding can be found to support employers in this regard. Success will to a large extent, therefore, depend on the merSETA's ability to establish and maintain strategic funding partnerships in support of this goal. Also in support of its major artisan development focus is the merSETA's: critical involvement with the ATD-TTT; piloting of the Apprenticeship Dual System of artisan training; research into artisan competence levels, cost-benefit-quality processes, identity and status; and RPL.

merSETA support for other aspects of government's social and economic development agenda spans an MOU with the dti in support of IPAP; the placement of unemployed graduates in the labour market; support for SIPs; being a Development Quality Partner for the QCTO; partnerships with the TVET college sector; and engagement with other national policy directives.

A number of challenges continue to face the sector in respect of the supply of critical technical skills. The poor quality of secondary school education, particularly in maths and physical science, constrains both entry to and successes in higher education engineering qualifications. This issue also limits the extent to which workplace-based training can be used to develop employees that enter the sector directly after Grade 12. Also impacting on higher education output are factors such as insufficient physical and teaching resources to sustain the current growth rates, particularly in respect of engineers at HET level.

Factors that impact on the generation of key artisan skills include: the variable quality of artisans produced by the four different training routes and the scrapping and subsequent re-introduction of the N1 to N3 theory component of apprenticeships. It is hoped that the QCTO, working with the NAMB and all the existing SETAs – including especially the merSETA – will address these issues as it seeks to operationalise the National Occupations Pathways Framework (NOPF) element of the revised NQF.

6 SKILLS NEEDS OF THE MERSETA SECTOR

Chapter 4 described the demand for labour within the merSETA sector, while Chapter 5 provided an overview of the supply of skills to the sector. The aim of this chapter is to bring the discussion of skills demand and supply together in a more structured way.

The first part of the chapter considers the broad categories of skills development needs, as these emerge from the discussions in the previous chapters of this SSP. These broad categories include technical skills; fundamental work-readiness skills (the basic skills necessary for safe and efficient production); health and safety skills; HIV and AIDS awareness and prevention; ABET; RPL; the development of black managers; environmental skills; and the training and development of retrenched workers.

The next section presents information on specific occupations in the sector that can be regarded as scarce or critical occupations. The 2013 merSETA Scarce and Critical Skills List involved substantial industry engagement despite having its base in the quantitative analysis of the merSETA 2013 WSP vacancy data. More expansive chamber-specific priority skills lists are presented in Appendix 2.

The final section of the chapter considers the SIPs Scarce Skills List, and merSETA's intended contribution to the development merSETA-relevant skills on this list.

6.1 BROAD CATEGORIES OF SKILL DEVELOPMENT NEEDS

6.1.1 Technical skills

The work environment for the majority of employees in the merSETA sector demands a level of technical knowledge and skills. These range from the more basic technical skills required by machine operators to the advanced technical skills demanded by artisans and engineers. In addition, as technology in the areas of materials, manufacturing, logistics, CNC and CAD are continually advancing, regular updating of technical skills across all levels of employees is an ongoing skills development need for the sector.

6.1.2 Fundamental work-readiness skills

"Fundamental work-readiness skills" refers to the skills necessary to utilise acquired theoretical and practical knowledge, and skills in support of efficient and profitable production and/or service delivery for the employer within the work environment. In US technical colleges this group of skills is

referred to as “critical core manufacturing skills” and includes both soft skills and fundamental skills. This skills group covers four key areas: fundamental productivity skills (working productively, following directions, and maintaining a safe work environment); fundamental problem-solving skills (thinking critically, applying problem-solving strategies, and applying mathematical reasoning); fundamental team skills (working cooperatively in teams, communicating clearly, and listening effectively); and fundamental adaptability skills (demonstrating integrity, demonstrating a positive attitude, and adapting to change).[281] The need for such skills is in line with the merSETA’s finding that the skills most required by industry are: “a positive attitude; solid work ethics; thinking skills related to maths and reading skills; problem-solving skills; and interpersonal and communication skills”.[282]

6.1.3 Health and safety

While also part of the group of core skills for the sector, health and safety skills require specific attention. Training in this area is legislated and includes both induction courses and regular refresher courses.

6.1.4 HIV/AIDS awareness and prevention

While many organisations in the sector have instituted various interventions to curb the spread of HIV infections and to treat HIV-positive workers and those workers who are living with AIDS, infection rates in the sector are higher than in many other sectors of the national economy. As such, firms – with some assistance from the merSETA’s HIV and AIDS Workplace Management Programme – need to continue to focus on awareness and prevention programmes.

6.1.5 ABET

A substantial 19.6% of the sector’s employees are employed as elementary workers and are likely to have formal educational levels below NQF Level 1. 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. For these groups, ABET 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.

[281] Fox Valley Technical College (2011) http://www.fvtc.edu/public/content.aspx?ID=1620&PID=10, Accessed 26 September 2011.

[282] merSETA (2010) The impact of the 2008/9 global economic crisis on firms merSETA: A focus on employment and skills, EE Research Focus Pty (Ltd).

6.1.6 Recognition of prior learning (RPL)

While there are still numerous challenges to assessing the skills of all individual workers in the sector who have extensive experience but who have not had the opportunity to earn formal qualifications, one area in which RPL has now been institutionalised is the area of artisan training. The RPL route forms one of four routes through which artisans can acquire the practical knowledge needed to qualify to undertake a formal trade test. A dedicated RPL unit is being established through the NAMB at INDLELA.[283]

6.1.7 The development of black managers

In support of transformation efforts within the sector, the development of black managers remains critical. This will necessarily entail a focus on the transformation at the professional levels of employees, as these generally feed into management positions. Support by the merSETA of increased access for and graduation of black students, particularly in engineering qualifications, is thus imperative.

6.1.8 Environmental skills

Skills that support the development and use of 'greener' technologies and the Green Agenda more broadly are likely to become increasingly important in the sector and thus need to be considered among the merSETA's skills development priorities now. The merSETA Strategic Plan has prioritised skills for sustainable development.

6.1.9 Training and development of retrenched employees

The merSETA's sectors have suffered considerable levels of employee retrenchment since the start of the economic crisis in late 2008. While many of the retrenched were permanent workers, the vast majority would have been more vulnerable casual workers, as cancellation of labour-broker contracts was one of the first ways that firms sought to cut operating costs at the start of the crisis. Many of the programmes that were undertaken by companies (either with or without merSETA or government support)[284] should become institutionalised so that employees that are forced to leave

[283] Dr Florus Prinsloo, NAMB, interview, 9 July 2012.

[284] merSETA (2010) The impact of the 2008/9 global economic crisis on firms merSETA: A focus on employment and skills, EE Research Focus Pty (Ltd).

the sector have the entrepreneurial and other skills necessary for self-employment or for employment in other sectors.

6.2 SPECIFIC SCARCE SKILLS

Every year until 2011, the merSETA undertook an exercise to determine the scarce-skills requirements for each of the five chambers. This exercise was carried out partly to meet the demands of the Employment Services and Skills Analysis (ESSA) database that the Department of Home Affairs uses as a consideration in issuing foreign nationals with work permits, and partly to inform the skills development planning for the sector. However, because the magnitude of training needs within the various sectors and subsectors was the major determining factor in the development of these 'scarce-skills' lists, they did not in fact reflect genuinely 'scarce occupations' with any level of accuracy. The merSETA recognised this problem, and started addressing it in 2012. At the same time, industry stakeholders no longer unanimously support the concept of 'scarce skills'.

A priority skills list was drawn up by the merSETA in 2013/14 using a combination of statistical analysis of vacancy data from the WSP and consultation with sector representatives. Qualitative inputs from the sector confirms that the skills indicated were either very difficult to find, difficult to train or crucial to the sector in terms of sustainability and global competitiveness.

The Scarce and Critical Skills list presented in the SSP was determined through the following process:

- WSP 2043 data, which contains data on occupational vacancies, was used and a number of filters were applied to a group of variables. Occupation from the WSP 2014 data were included in the list of scarce skills if: 1) The total sector employment of a particular occupation was greater than 500; 2) The percentage of employing companies that reported a scarcity for a particular occupation was greater than 1.5%; 3) The number of companies reporting a scarcity was greater than 5; 4) The percentage of vacancies for a particular occupation was greater than 1.0% of total employment for that occupation; and 5) The number of vacancies was greater than 20.
- WSP 2014 data was again considered. Of the occupations with fewer than 600 employees, a qualitative process was undertaken to highlight those where the proportion of vacancies compared with overall employment levels was high and/or the actual number of vacancies was high.

- merSETA Chamber Representatives were then asked to obtain industry input on the draft list. This step will be verified in early September.
- The merSETA 2014 Scarce and Critical Skills List includes an amalgamation the scarce and critical skills lists from the Auto, Metals, Motor, New Tyre and Plastics Chambers.

The 2014 merSETA Scarce and Critical Skills List is presented below. The table is ordered according to OFO codes, and thus the order does not reflect the relative importance of the skills or occupations. Most of the skills are of a technical nature. However, a few occupations that are generally found in support functions in merSETA firms are again included in the list.

Status to report DHET	OFO	OFO Title	Colour code	new positions	replacement	total needed
top 10	132102	Production / Operations Manager (Manufacturing)	Red	**39**	**223**	**262**
	311702	Metallurgical or Materials Technician	Red	5	36	41
	522303	Automotive Parts Salesperson	Red	37	120	157
	642701	Air-conditioning and Refrigeration Mechanic	Red	7	25	32
	643202	Vehicle Painter	Red	12	36	48
	651202	Welder	Red	65	301	366
	651302	Boilermaker	Red	17	82	99
	652201	Toolmaker	Red	25	65	90
	652301	Metal Machinist	Red	48	190	239
	653101	Automotive Motor Mechanic	Red	93	276	368
high priority	653306	Diesel Mechanic	Red	6	25	31
	671101	Electrician	Red	26	123	149
	684904	Panelbeater	Red	27	77	104
	718905	Engineering Production Systems Worker	Red	209	945	1154
	832910	Component Fitter	Red	39	123	162
medium priority	121101	Finance Manager	Amber	14	75	88
	121206	Health and Safety Manager	Amber	1	7	8
	121908	Quality Systems Manager	Amber	20	116	135
	243301	Sales Representative / Salesman (Industrial	Amber	41	21	256

		Products)			5	
	311401	Electronic Engineering Technician	Amber	1	9	10
	642607	Pipe Fitter	Amber	1	6	7
	642702	Refrigeration Mechanic	Amber	2	11	13
	651501	Rigger	Amber	5	25	29
	652302	Fitter and Turner	Amber	57	265	322
	671206	Appliance Mechanician	Amber	0	1	2
	712101	Metal Processing Plant Operator	Amber	20	60	80
	714101	Rubber Production Machine Operator	Amber	-39	156	117
	714208	Plastics Manufacturing Machine Minder	Amber	25	32	57
	832901	Metal Engineering Process Worker	Amber	142	679	821
longer term priority	714204	Plastics Production Machine Operator (General)	Green	235	372	607
	721901	Product Assembler	Green	147	482	629

Table 6-1 merSETA scarce and Critical Skills List

Source: merSETA WSP data 2014

6.3 SKILLS REQUIRED IN SUPPORT OF THE SUCCESSFUL IMPLEMENTATION OF THE SIPS

The Presidential Infrastructure Coordination Commission (PICC) recently released a SIPs Scarce Skills List (version one – May 2013), which all SETAs are asked to address in their SSPs. Specifically, government requires that SETAs indicate the way in which they are planning to address shortages in all the scarce skills relevant to their sector.

In the table below, merSETA SIPS commitments are outlined. The development of skills relevant to these occupations will thus receive merSETA's direct attention and support.

OFO	TRADES SUPPORTED	NUMBER TOTAL
671202	**Millwright**	200
651302	**Boilermaker**	150
651202	**Welder**	100
651501	**Rigger**	50
651101	**Moulder**	15
642607	**Pipe Fitter**	20
Total		535

Table 6-2 Scarce Skills for the Special Infrastructure Projects (SIPs)

In addition to merSETA supporting the development of skills that have been identified by government as relevant to the SIPs, merSETA intends to provide channels through which unemployed graduates with relevant skills (but with relatively little experience) can be accessed by the private sector companies that win the tenders to undertake the SIPs projects.

6.4 CONCLUSIONS

This chapter pulls together the various broad categories of skills development needs in the merSETA sector that have been alluded to in the previous chapters of this SSP. These include technical skills, fundamental work-readiness skills (the basic skills necessary for safe and efficient production); health and safety skills; HIV and AIDS awareness and prevention; ABET; RPL; the development of black managers; environmental skills; and the training and development of retrenched workers.

In respect of the specific skills that need focused attention, merSETA's 2014 Draft on Scarce and Critical Skills List is included in this chapter.

The SIPs Scarce Skills List that has been released by government includes a number of occupations that have been identified by merSETA as part of its Priority Skills List. mersSETA have made direct commitments for SIPS. The development of skills to match these occupations will thus receive direct support from the merSETA. Additionally, merSETA will develop ways in which employers on SIPs projects can access information about recent graduates with relevant skills. Such platforms are necessary in order to support and facilitate the provision of skills for these important projects and for maximizing employment opportunities for young people entering the sector.

7 SKILL DEVELOPMENT PRIORITIES

7.1 INTRODUCTION

The merSETA Accounting Authority is ultimately responsible for determining the strategic priorities for the sector. On 31 July and 01 August 2014, the Accounting Authority reviewed the merSETA five-year rolling strategy against: the sector imperatives as they emerged from the sectoral analysis presented in the preceding chapters of this SSP; national imperatives as highlighted in the discussion of various government policies, plans and objectives; its own current and ongoing commitments; and the available funding.

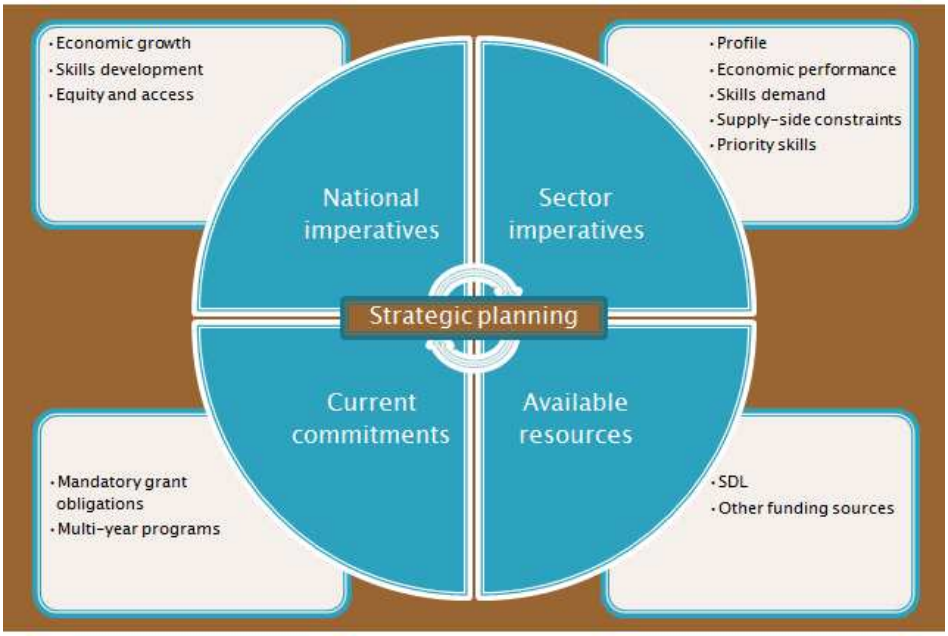

Figure 7-1 The merSETA's approach to determining skills development priorities and its strategic plan

Overshadowing this exercise was the awareness that the merSETA is entering the final year of its legislated lifespan, and the expectation of broad changes to the SETA landscape and skills development system coupled with the imminent work on the development of NSDS IV. The consensus therefore was that the immediate strategic focus needs to be on consolidation, rather than expansion; on evaluation of impact and refinement of current strategy, rather than development of new strategy, and on preparation for the transition, including administrative and governance arrangements, and the positioning of the merSETA and its sector stakeholders for the new NSDS period.

The first section of this chapter discusses the key strategic issues that arise from the analysis undertaken for this SSP. The alignment of this SSP with specific strategies is discussed in more detail in later sections of the chapter. The discussion of key strategic issues is followed by an explanation of the merSETA's skills development priorities. These priorities provide the guiding principles for the Strategic Plan and Annual Performance Plan. The priorities are cross-cutting and in most cases are addressed by several projects and programmes simultaneously.

7.2 STRATEGIC ISSUES ARISING FROM THIS SSP

A number of strategic issues relate directly to the situational analysis and the sector analysis undertaken for this SSP. Specific observations made by the Accounting Authority in relation to the first draft updated SSP in this year's Strategy workshop included:

- The need to address quality dimensions in the supply of skills.
- The importance of an expanded perspective on the sector profile, to include smaller companies and organisations exempted from the levy payments.
- The ongoing importance of rural / urban linkages and developing a coherent sector regional skills development strategy.
- The need for an increased focus on People with Disabilities.
- The importance of increased company level capacity-building, vigilance and monitoring of WSP and ATR alignment, and addressing national and sector skills development priorities.
- The imperative for more nuanced, sub-sector level analysis within the five broad sectors of the merSETA.
- In both skills planning and implementation, the need to identify absorption (exit and placement) strategies.
- The need to analyse regional, district and municipal linkages, in implementing provincial level agreements.
- To explore and promote linkages between skills development and employment equity at company level.

In addition to concerns regarding the availability and sustainability of funding, the sector recognises that there is a need to increase the efficiency of its spending. Improving the efficiency and economy of skills development efforts in the sector will make it easier to raise funding from other sources, as well as improve the impact of its skills development support in the sector. Key initiatives to address these concerns include the broader roll-out of applied apprenticeship research linked to quality,

cost, and return on training investment, as well as learner tracer studies. The development of an integrated monitoring and evaluation system at all structural levels is envisaged.

Sector capacity-building in the use of the OFO codes, as well as developing a mechanism to quantify skills shortages, linked to WSP submissions remains a priority, including the alignment of internal IT and administration functions, with the requirements for credible research and sector skills planning. Similarly implementing targeted skills development support mechanisms for levy-paying, but non-participating SME's in aimed at unlocking the potential of SMEs to participate more fully in skills development.

The need for sector skills planning and implementation to **support national transformation and access** remains a concern, in view of the demographic profile of the sector across occupational levels, although as discussed earlier this trend is shifting as a result of an ongoing focus on this issue. Interventions to increase the representation of women, and black managers and professionals in the sector will therefore continue. Supporting rural development, as discussed in the previous chapter, in an industry that is largely urban based, requires new understandings and linkages across sectors. In this regard, developing strategies to improve the sector's response to the national imperative around **providing increased opportunities for workplace experience** is a priority

A major concern for industry is that in the context of the existing economic climate, the **employment-creation capacity of the sector** (as envisaged by the various government policies) may be overstated. As noted earlier in the SSP, the merSETA has also registered an ongoing decrease in levy-paying companies and employment levels in the sector. Questions continue to apply concerning the validity of skills demand data apply not only to the long-term total employment forecasts, but also to the distribution of skills across various occupations. In this SSP the determination of the merSETA scarce and critical skills list has for the first time used as its foundation the number of vacancies reported by firms across the sector in their 2014 WSP submissions. The improvement of the merSETA data system, its continued validation against other data sources, and the collection of additional information where needed are issues that require continued attention from the merSETA into the foreseeable future. Closely related, is the need to **find the right balance between government and sectoral imperatives**, and understanding the supply-side infrastructure serving strategic, integrated projects (e.g. the SIPs, SEZ's) in order to develop an understanding of the complementary nature of such initiatives for medium and long-term sector growth.

7.3 MERSETA SKILLS DEVELOPMENT PRIORITIES

Implications of the White Paper for Post School Education and Authority

Particular attention was also given to the Accounting Authority's strategic planning and to the specific implications of the White Paper for Post School Education and Training (PSET) for the merSETA, which includes:

1. The introduction of 'social justice' as a concept embedded in skills development, that includes encouraging open and distance learning, structured community involvement, as well as RPL and Credit Accumulation and Transfer (CAT).
2. Ensuring that training provision is directed towards identified sector, cross-sector and occupational needs.
3. The need for SETAs to play a stronger role in improving the articulation between educational institutions and the labour market.
4. Encouraging, facilitating and funding private sector employers to provide workplace-based learning, especially through apprenticeships, learnerships and internships.
5. An injunction for SETAs to do more than currently to monitor and evaluate the impact of skills interventions in their sectors.
6. Inter-SETA Collaboration, through clustering to avoid duplication and share resources as precursor to "significant restructuring of the SETA landscape in 2016".
7. The role of the National Skills Authority (NSA) in monitoring and evaluation of SETAs.
8. Establishment of community colleges that will provide vocational, skills development and non-formal programmes.
9. A new approach to quality assurance including the changing roles of the QCTO that will absorb NAMB, SETAs will less role, SAQA as well as the rationalisation of occupations and greater centralisation of curriculum development in TVET sector through SAIVCET.
10. The importance of Higher Education Institutions Partnerships that will encourage customised professional and higher-level occupational qualifications and specialisations as well as research and innovation for development.

The merSETA Strategic Priorities as confirmed and refined, seek to address the following objectives:

- Addressing strategic skills development challenges;

- identifying opportunities for innovation in products, services, operations and business models;
- balancing competing short and longer-term skills development needs for the sector;
- balancing competing stakeholder needs and interests;
- enhancing merSETA's capacity to respond to the skills development needs of the sector;
- enhancing efficiency and effectiveness of the merSETA; and
- supporting the integrated rural development, sustainable green skills development, and learning programmes for People With Disabilities, as cross-cutting issues.

7.3.1 Priority 1: **Develop the sector labour market intelligence (LMI) system**

This overarching priority for the sector is to promote and develop an institutional base for providing robust and reliable sector data. The development of an LMI is seen as a vital part of the skills planning and skills development processes necessary to give confidence to and assist in making informed planning decisions and impact considerations. An LMI consists of two vital components: a comprehensive data system and a research capability. To this end the merSETA is participating as the lead SETA in the DHET / HSRC Labour Market Intelligence Project (LMIP).

The merSETA has developed and is in the process of implementing a comprehensive strategy that seeks to improve data quality and data collations to improve the statistical base and to participate meaningfully in the bigger LMIP project; as well as to ensure alignment of internal IT and administration functions, with the requirements for credible research and sector skills planning such as:

- addressing sustainable green skills and supporting the informal economy;
- specific attention will be paid to developing and implementing the merSETA Monitoring and Evaluation Framework;
- tracer studies and impact evaluation;
- systematic development of research partnerships (see more detail under Priority 3, below);
- research and innovation capacity building;
- knowledge management and dissemination of research information relevant to the sector;
- concerted efforts to measure merSETA impact on skills development and therefore continuous improvement backed up by evidence; and

  continued efforts in terms of KM and Innovation, to become part of culture within and outside of the SETA (stakeholders to be more involved).

Focus	Piloting key areas of the DHET Labour Market Information Project (LMIP); Implementing partnership agreement with the Development Policy Research Unit (University of Cape Town). Implementing Government Technical Assistance Centre (National Treasury) Monitoring and Evaluation partnership project. Targeted approaches to HEI research partnerships.
Key considerations	Equality and equity within a context of globalisation; an ageing workforce and youth unemployment; sustainability issues within the context of the 'green economy'; technology innovation impacting on society and business operations as well as how sectoral value chain analysis could contribute to defining new and innovative skills development initiatives, and skills requirements in support of new manufacturing associated with new products and new technologies.
Critical areas	Internal merSETA processes, TVET research and development (R&D) capacity development, knowledge management. Alignment of OFO codes utilisation at all levels; WSP and ATR data collection and analysis, sector-wide surveys, applied research, Monitoring and Evaluation Framework, innovation capability.
Cross-cutting issues	Rural development, sustainable green skills development, and skills development of PWD.
NSDS III goals	1. Establishing a credible institutional mechanism for skills planning.

Table 7-1 Priority 1

7.3.2 Priority 2: **Continued and Increased focus on artisan development**

There continues to be an urgent need to develop frameworks and incentive mechanisms to promote the active involvement of relevant stakeholders in planning, governance, curriculum, qualifications development and assessment, as well as provider-employer cooperation and workplace learning for a systemic, scalable and sustainable artisan development system. This would include diversifying sources of appropriate funding for artisan development by involving all stakeholders, as well as investigating the potential of introducing informal apprenticeships, linked to the informal economy, as part of broadening the base.

The key role of the merSETA in ensuring a constant supply of artisans to the manufacturing sector and other sectors of the economy is the most critical skills development area for achieving its strategic intent. The merSETA's is exploring and piloting innovative approaches both to funding as well as delivering apprenticeships in a way that will simultaneously address the needs of the sector as well as national socio-economic development objectives and initiatives (such as the SIPs).

The merSETA will continue to play a lead role in implementing the Dual System Apprenticeships Project, under the oversight of NAMB. Beyond TVET college / industry partnerships, the merSETA has prioritised the need to implement joint initiatives to support this project. The merSETA will also engage proactively with the sector in order to promote the sustainability of the learnership route to NQF Level 4, systematic investigation of the role and potential of internships, and to ensure that the quality of artisans produced meets with industry requirements.

Enhancing the current skills development infrastructure is critical. The relationship between TVET colleges, industry training centres and industry will be strengthened through a range of projects, programmes, incentives, and other forms of support. These include engagement with curriculum challenges and promoting the Recognition of Prior Learning (RPL). Another matter that the merSETA will attend to is the development of the capacity of SMEs to offer artisan training and internships.

Emerging thinking around artisan training in the sector, focuses on the need for a more nuanced understanding of the pathways to apprentice status, from a learner progression, career guidance, and sector and company perspective: in other words, there are different categories of artisans, based on particular skills set requirements, and programmes to address entry level as well as post qualification development, through to Master Artisan status will be systematically explored, based on "coal-face" research on the ground (for example, coded welders are not necessarily fully qualified apprenticeship, the case of technologists in the tyre and plastics sectors). It is believed that a more nuanced approach may also provide gains in terms of both affordability and sustainability of the artisan drive.

Focus	Quality of supply and quality curricula. Efficiencies in TVET College / industry collaboration. Extending the reach of applied research (COMET, QBC) to benefit the system as a whole.
Key considerations	TVET Financing mechanisms for formal apprenticeship systems, including PPPs; Sectors are contracting - massive job losses and unemployment likely to prevail but sector must remain globally competitive thus focused efforts on improving business success but balancing the short term skills needs with longer term sustainability
Critical areas	Quality, supply-side capacity, R&D; Increasing the number of apprenticeships available to young people by overcoming barriers to apprenticeship in smaller industries. Focus on improving learner achievement and not accepting prescribed minimum standards in terms of learner grades.
Cross-cutting issues	Rural development, sustainable green skills development, and skills development of PWD.
NSDS III goals	2. Increasing access to occupationally directed programmes; 3. Promoting the growth of a public TVET college system that is responsive to sector-, local-, regional- and national skills needs and priorities; 5. Encouraging better use of workplace-based skills development; 7. Increasing public sector capacity for improved service delivery and supporting the building of a developmental state; and 8. Building career- and vocational guidance.

Table 7-2 Priority 2

1.1.1 Priority 3: **Establish and facilitate strategic partnerships**

The Accounting Authority emphasised the need for strategic partnerships that will impact on both the funding available for skills development and the improved quality of skills development

The merSETA intends to act as a key facilitator to assist the sector to engage meaningfully with a range of government and non-governmental stakeholders in ensuring that the national skills

development agenda is coordinated and adequately resourced and funded. This will involve working on the identified skills development needs, together with a wide range of entities and intermediary organisations, including:

- Other SETAs The Department of Trade and Industry (in particular around IPAP and the SEZ initiatives).
- The Department of Environment Affairs ('greening' of the economy and supporting creation of 'green jobs').
- The Department of Science and Technology (around sector innovation fund projects).
- The Department of Public Works.
- Relevant provincial government departments.
- National agencies and institutions Employer associations, industries and sectors that are both upstream suppliers and downstream consumers of the merSETA sector's products.

The merSETA intends to maintain and pursue partnerships with key higher education institutions both locally and internationally to ensure that:

- New ideas and research outcomes are systematically created in line with the merSETA strategy and developed in projects that come within the scope of available resources and funding; that research and project outcomes are appropriately disseminated within a knowledge management framework, striving to achieve an impact on the efficiency and effectiveness of skills development in operations, workplaces and regional development.
- merSETA's competence is developed using challenging and applied research projects in association with TVET and HE institutions and agencies, nationally and internationally.
- A futures-oriented approach is embedded in addressing the challenges of equality and equity within a context of globalization, an ageing workforce, youth unemployment, sustainability issues within the context of the "green economy", and technological changes impacting on society and business operations.

In the coming period the merSETA intends to consolidate and strengthen its network with partner SADEC institutions. Partnerships will also be sought with industry providers and centres of excellence.

merSETA partnerships will also actively seek to increase the levels of funding available for training and skills development in the sector. Such arrangements will include:

- Co-funding of training, with employers, provinces, the UIF and various state departments, including clusters of SETAs.
- Improving stakeholder participation through engaging industry associations, employer associations, organised labour, and sector bargaining councils to address bottlenecks in the system; increased levels of co-ordination and efficiency.

Focus	Establishing and facilitating strategic partnerships for sustainability, quality and efficiency.
Key considerations	Higher education institutions, skills development agencies, other government agencies, employers; partner institutions in sub-Saharan Africa.
Critical areas	Synergy of objectives, objectives realised, identification of shared and respective interests and roles, sustainable funding, efficient spending and return on investment. Monitoring and Evaluation to measure effectiveness, efficiencies and success/failure
Cross-cutting issues	Rural development, sustainable green skills development, and skills development of PWD.
NSDS III goals	1. Establishing a credible institutional mechanism for skills planning; 2. Increasing access to occupationally directed programmes; 3. Promoting the growth of a public TVET college system that is responsive to sector-, local-, regional- and national skills needs and priorities; 4. Addressing the low level of youth and adult language and numeracy skills to enable additional training; 5. Encouraging better use of workplace-based skills development; 6. Encouraging and supporting cooperatives, small enterprises, worker-initiated-, NGO-, and community training initiatives; 7. Increasing public sector capacity for improved service delivery and supporting the building of a developmental state; and 8. Building career- and vocational guidance.

Table 7-3 Priority 3

7.3.3 Priority 4: **Increase the flow of newly skilled workers into the sector**

A critical priority is to ensure a steady increase in the flow of new workers who have the skills required by the sector. This involves increasing the skills available to the sector to meet its short-term needs and improving the base level of learning. It is intended that these increases should be large enough to provide for the systematic eradication of the skills shortages that are currently experienced and to accommodate the expected growth of the economy, the impact of technological changes, globalisation and the replacement demand that currently exists in the sector. New entrants should possess the professional- and technical qualifications required by the sector and should increasingly reflect the racial and gender composition of the SA population across all occupational categories.

Interventions linked to this priority are planned that will include Adult Education and Training, including Foundational Learning Competence (FLC) and innovative interventions for out-of-school youth, focused on promoting access to training and workplace experience. The merSETA will also pay attention in the coming year to the development and implementation of a sector-wide strategy to significantly increase the intake of young learners into workplace experience and internship opportunities within companies in the sector. Particular attention will be given to the systemic implementation of internships. The implementation of the recommendations and findings of the sector-wide tracer study on newly qualified and post-trade test artisans, currently underway, also supports this priority. It is expected that the merSETA will support bridging and foundation programmes that focus on improving the skills supply pipeline, such as improving the pool of candidates with acceptable maths and science passes – either to enter into engineering-related apprenticeships and learnerships or to increase throughput of university engineering, technician, and technologist graduates. Additionally, the merSETA's increased focus on career guidance and development in rural areas will be closely linked to this priority.

Focus	Significantly increasing the supply and flow of candidates into the skills development system and sector.
Key considerations	Sectors are contracting so continued supply of sub-par candidates will be to the detriment of the sector and to livelihoods. There is a need to find a balance of quality and short term needs, through market analysis and with industry partners to critically evaluate where the skills gaps are and how to improve these. In both skills planning and implementation, there will be a renewed focus on absorption (exit and placement) strategies (including the possibilities of regional, district and municipal linkages, in for example, implementing provincial level agreements.
Critical areas	Incentives and opportunities for workplace placement, building industry and company capacity to provide meaningful experience, alignment of skills demand and supply; tracer studies and learner tracking. Responding to national development prerogatives, innovative solutions for youth not in employment, education or training (NEET) to promote employability, including bridging and foundation programmes. TVET College / HEI articulation.
Cross-cutting issues	Rural development, sustainable green skills development, and skills development of PWD.
NSDS III goals	2. Increasing access to occupationally directed programmes; 3. Promoting the growth of a public TVET college system that is responsive to sector-, local-, regional- and national skills needs and priorities; 4. Addressing the level of youth- and adult language and numeracy skills to enable additional training; 6. Encouraging and supporting co-operatives, small enterprises, worker-initiated-, NGO-, and community training initiatives; and 8. Building career and vocational guidance.

Table 7-4 Priority 4

7.3.4 Priority 5: **Develop the skills of the existing workforce**

The development of existing employees in the sector is of primary importance for the development of the sector and for achieving outcomes that are consistent with decent work, equity, and sector-economic (and thus employment) growth. Without a skilled, effective and enabling workforce, development in the sector is likely to be muted. Considerable attention will be given to stregthening the sector systems for RPL through the national Artisan Recognition of Prior Learning (ARPL) initiative of NAMB. Promoting equity in the workforce and company-based succession planning will also receive special attention in the coming year, as well as a more integrated to approach to addressing stakeholder capacity-building needs, in particular that of organised labour.

In this regard, the sector has identified the need to continue to develop and refine an integrated learning pathways framework to identify occupational pathways for existing employees, as well as the re-skilling of retrenched workers, for reintegration and retention in the sector. In this regard implementing the findings of the Chamber Research Projects, and deepening that research is seen as a key enabler for this strategic priority. Funding and provisioning models, through the merSETA Grants Policy aim to accelerate progress and ensure continuity of learning and development initiatives across multiple years and levels. The ongoing development of new occupational qualifications to promote workplace learning will continue, with the participation of industry experts and TVETC lecturers, by agreement with the QCTO, while due attention to the role and need and principles for short courses within the sector will also receive attention

With regards to continuing education, post qualification programmes, continuous professional development, and management development (with an emphasis on black females from technical backgrounds) is seen as an ongoing priority to address the gender and race bias at the higher occupational levels.

Focus	Increasing the skills of existing employees in the sector to support employment and business growth, equity, productivity and industrial competiveness.
Key considerations	Expanding the skills base; productivity and efficiencies for industry sustainability in tough economic climate; innovation and technological development; 'greening' of industry; Learning pathways for workers. Addressing gender and race imbalances.
Critical areas	Chamber and sector level research ; Labour capacity-building; Industry Leadership Development Programme; Enhancing lifelong learning and supporting infrastructure for skills development, including learning programmes, curricula and materials to promote access and success. Recognition of Prior Learning.
Cross-cutting issues	Rural development, sustainable green skills development, and skills development of PWD.
NSDS III goals	1. Establishing a credible institutional mechanism for skills planning; 4. Addressing the low level of youth- and adult language and numeracy skills to enable additional training; 5. Encouraging better use of workplace-based skills development; and 8. Building career- and vocational guidance.

Table 7-5 Priority 5

7.4 MERSETA STRATEGIC PRIORITIES LINKED TO ITS STRATEGIC PROGRAMMES.

Both the merSETA Grants Policy and Projects Policy have been revised for the 2014/15 to 2016 period. Both the projects and the grants policies support the implementation of the merSETA Strategic Programmes. The Projects Policy defines "Programmes" as strategic conceptual frameworks, aimed at achieving business objectives, clearly defining what has to be done, by whom, when and where, and linked to NSDS indicators. A programme exists to support merSETA's strategic priorities.

The merSETA **Grants Policy** has been aligned to all relevant legislation and regulations, as well as national and merSETA skills development priorities. It is reproduced in full, as Appendix 3of this SSP, in accordance with the recommendation of the National Skills Accord.

Under the **Projects Policy**, the merSETA and its project partners commit to:

1.1 Taking full responsibility for consistent quality, subject to monitoring and evaluation throughout the project life cycle.

1.2 Implementing projects efficiently and effectively and to deliver quality services within the applicable legislative frameworks and national guidelines.

1.3 Exercising responsible thought-leadership in the conceptualization and execution of innovative and meaningful deliverables and skills development solutions and interventions.

1.4 Sharing best practices, and lessons learned in accordance with the merSETA Knowledge Management Policy, and Monitoring and Evaluation Framework.

7.5 MERSETA PROGRAMMES LINKED TO ITS STRATEGIC PRIORITIES

This section seeks to more directly link the priorities that arise from this SSP to the merSETA's Strategic Plan and Annual Performance Plan.

Programme	Outcome	Programme Indicator	Link to merSETA Skills Development Priorities
1: Administration	1.1 Effective and efficient governance within the merSETA	1.1.1 Best practice in line with King III	Priority 1: Develop a sector LMI system and facilitate sector-specific research initiatives Priority 3: Establish and facilitate strategic partnerships Priority 5: Develop the skills of the existing workforce
		1.1.2 merSETA resources aligned to effectively execute the strategy	
		1.1.3 Continuous performance improvement linked to new merSETA values	
		1.1.4 Compliance with all relevant legislation and regulations	
		1.1.5 Customer/stakeholder expectations met and or exceed	
		1.1.6 Sound financial accountability	
		1.1.7 Communication strategy developed and implemented	
		1.1.8 Monitoring and evaluation of operations and projects	

Programme	Outcome	Programme Indicator	Link to merSETA Skills Development Priorities
2: Skills Planning	2.1 Effective mechanism for sector skills planning	2.1.1 Capacity for research and skills planning established	Priority 1: Develop a sector LMI system and facilitate sector-specific research initiatives
		2.1.2 Capacity building of stakeholders	Priority 5: Develop the skills of the existing workforce
		2.1.3 Grants aligned with the sector skills plan	Priority 1: Develop a sector LMI system and facilitate sector-specific research initiatives
		2.1.4 Implementation of partnerships for credible skills planning	Priority 1: Develop a sector LMI system and facilitate sector-specific research initiatives Priority 3: Establish and facilitate strategic partnerships
3: Increase access to occupation-directed programmes	3.1 Increased access to occupation-directed programmes	3.1.1 Skills development initiatives in the workplace are implemented through the effective utilisation of the levy grants system	Priority 5: Develop the skills of the existing workforce Priority 3: Establish and facilitate strategic partnerships
		3.1.2 A total of 20 000 artisans qualified over the five-year period	Priority 2: Promote artisan development and sector-specific priority skills Priority 3: Establish and facilitate strategic partnerships
		3.1.3 Comprehensive RPL programme implemented	Priority 2: Promote artisan development and sector-specific priority skills
		3.1.4 High-level national scarce skills need to be identified and addressed.	Priority 1:Develop a sector LMI system and facilitate sector-specific research initiatives Priority 5: Develop the skills of the existing workforce

Programme	Outcome	Programme Indicator	Link to merSETA Skills Development Priorities
		3.1.5 DQP Qualifications developed	Priority 4: Increase the flow of appropriately skilled new entrants into the system Priority 3: Establish and facilitate strategic partnerships
		3.1.6 Training Layoff Scheme	Priority 5: Develop the skills of the existing workforce
		3.1.7 Relevant R&D and innovation capacity is developed and implemented.	Priority 1: Develop a sector LMI system and facilitate sector-specific research initiatives Priority 5: Develop the skills of the existing workforce
4: Promoting the responsiveness of TVET colleges to the intermediate skills needs of the sector	4.1 Promote the responsiveness of TVET colleges to sector skills needs	4.1.1 Sector participation in the relevance of curricula and qualifications offered by TVET colleges	Priority 3: Establish and facilitate strategic partnerships
		4.1.2 Established partnerships that result in increased capacity to meet industry needs throughout the country	Priority 3: Establish and facilitate strategic partnerships
		4.1.3 Mechanisms aimed at bridging the gap between industry and institutional provision	Priority 4: Increase the flow of appropriately skilled new entrants into the system Priority 3: Establish and facilitate strategic partnerships
		4.1.4 Address infrastructure needs of TVET colleges	Priority 2: Promote artisan development and sector-specific priority skills Priority 3: Establish and facilitate strategic partnerships
		4.1.5 New ISOE approach developed	Priority 2: Promote artisan development and sector-specific priority skills Priority 3: Establish and facilitate strategic partnerships
5: Addressing the low level of youth-	5.1 To strengthen the skills pipeline and	5.1.1 Low levels of literacy and numeracy amongst workers and new entrants addressed	Priority 5: Develop the skills of the existing workforce

Programme	Outcome	Programme Indicator	Link to merSETA Skills Development Priorities
and adult language and numeracy skills to enable additional training	address work readiness	5.1.2 Contribution towards the support and encouragement of initiatives for young learners and educators to achieve maths, science and technology results for entry into the sector	Priority 4: Increase the flow of appropriately skilled new entrants into the system
		5.1.3 Partnerships with organisations involved in youth skills development are initiated and signed	Priority 3: Establish and facilitate strategic partnerships
6: To promote workplace skills development within the sector	6.1 Improved workplace equity; enhanced workplace productivity	6.1.1 SETA stakeholders support the prioritisation of programmes geared to improving productivity	Priority 5: Develop the skills of the existing workforce
		6.1.2 Sector projects to address specific skills gaps and skills imbalances to contribute towards transforming the workplace are identified and implemented	Priority 5: Develop the skills of the existing workforce
		6.1.3 Cross-sectoral partnership projects are established to address skills needs in support of local economic development	Priority 3: Establish and facilitate strategic partnerships
		6.1.4 Wellness strategies developed	Priority 5: Develop the skills of the existing workforce
		6.1.5 A research programme to identify current and future interventions to support productivity improvements is implemented	Priority 1: Develop a sector LMI system and facilitate sector-specific research initiatives
		6.1.6 Need for workplace experience addressed	Priority 2: Promote artisan development and sector-specific priority skills Priority 4: Increase the flow of appropriately skilled new entrants into the system
		6.1.7 People with disabilities	Priority 4: Increase the flow of appropriately skilled new entrants into the system Priority 5: Develop the skills of the existing workforce
7: Encouraging and supporting cooperatives, small enterprises, worker-initiated-, NGO- and community training initiatives	7. 1 Encouraging and supporting cooperatives, small enterprises, worker-initiated-, NGO- and community training initiatives	7.1.1 Mechanisms and models developed to support skills development in the community-based- and small-enterprise sector through a range of partnerships, programmes, grants and incentives	Priority 3: Establish and facilitate strategic partnerships
		7.1.2 Support provided to programmes that build worker capacity identifying and meeting skills needs of their members, including RPL	

Programme	Outcome	Programme Indicator	Link to merSETA Skills Development Priorities
		7.1.3 Sub-sector opportunities scoped for skill development partnerships and funding	
8: Building career and vocational guidance	8.1 To position the manufacturing-and-related services industry to provide attractive pathways for personal and career development to young people	8.1.1 merSETA career gateway innovation network established to market and communicate career pathways and opportunities	Priority 4: Increase the flow of appropriately skilled new entrants into the system
		8.1.2 World Skills SA	Priority 3: Establish and facilitate strategic partnerships
		8.1.3 Contribution towards the support and encouragement of initiatives for young learners and educators to achieve maths, science and technology results for entry into the sector	Priority 4: Increase the flow of appropriately skilled new entrants into the system
		8.1.4 Partnerships identified and established with international-, national- and provincial career-resources agencies	Priority 3: Establish and facilitate strategic partnerships
		8.1.5 Capacity building of key stakeholders	Priority 3: Establish and facilitate strategic partnerships
		8.16 Comprehensive career development to support sector growth.	Priority 4: Increase the flow of appropriately skilled new entrants into the system

Table 7-6 NSDSIII programme goals linked to merSETA strategic objectives

7.6 SECTORAL CONTRIBUTION TO NSDS III TRANSFORMATION OBJECTIVES

NSDS III not only includes specific goals, but is also guided by seven key development and transformational imperatives that will guide implementation and against which NSDS III (and therefore all SETAs) will be measured. The ways in which this SSP serves to support these transformation objectives is discussed briefly in this section.

Race

All of merSETA's sectors have to comply with BB-BEE legislation and with the generic BEE Scorecard that aims to effect racial transformation of the productive economy. Owing to the high levels of multinational ownership and little leverage in this regard, transformation in respect of other areas such as management (where PDIs are still under-represented) becomes even more critical. The merSETA's strong focus on developing the skills of these people, particularly among the technical

occupations (including artisans and engineers), builds the foundation for transformation of these occupational groups, and later of management levels, as managers tend to be drawn from the experienced members of the technical occupations. The merSETA is currently rolling out a management development programme for black females from intermediate-sized companies in association with the University of Pretoria, to address the skewed racial profile of managers and professionals in the sector. The next phase would be to ensure a similar project at technician level. In addition, it has added an equity dimension to its impact section in the sector Annual Training Reports in order to encourage stronger links between skills development and equity.

Class

Class is difficult to measure and at present proxy indicators (unemployment, occupational group and formal education level) are used to consider the merSETA's contribution to this aspect of equity.

A relatively larger proportion of employment within merSETA sectors is for elementary workers and machine operators and drivers, and Adult Education and Training (AET) is directed at this group. The merSETA also invests a considerable portion of its levy income into training for the unemployed.

Gender

Women are under-represented in the majority of occupational categories across the merSETA sectors (see Chapter 2). The merSETA has in the past focused on supporting women's entry into the sector and will continue to do so over the period under review. It will also continue to report on its learners in terms of their gender. The afore-mentioned project and the NMMU partnership focusing on Black females in engineering seeks to address this dimension.

Rural development

In the upcoming period, the merSETA will continue to increase its efforts to focus on rural areas. As discussed in the previous chapter, the merSETA's rural strategy is a medium-term one and the provincial partnership projects constitute the chief vehicle for implementing the strategy. Current programmes such as the Retrenchment Assistance Project (RAP) offer opportunities to impact directly on the lives of former employees in the sector who have returned home, while the non-urban slant of the SET project is aimed at assisting learners from these areas to improve their chances of accessing merSETA related qualifications at TVET and HET levels, and thus aiding their entry into the sector.

Although manufacturing, engineering and related services firms within the merSETA sector are clustered into four mainly urban regions, two Chamber sectors, namely Motor, and New Tyre, have identified the for example the development of qualified motor mechanics that are able find employment almost anywhere in the country promotes the rural agenda, while the New Tyre Chamber is developing links with Recycling and Economic Development Initiative of South Africa (REDISA) around community development projects based on tyre recycling.

A growth area in which the merSETA has become increasingly involved is the rapid expansion of the green manufacturing industry, e.g. photovoltaic and wind-farms and although prospects for large scale employment creation in these areas remain uncertain, there will nevertheless be an increasing need for maintenance technicians in the years to come. Cross-SETA linkages, for example with MQA on beneficiation and downstream supplier development, or with Energy SETA around the green agenda, or water security, or AgriSETA on strengthening black commercial farmers, for example, also provide options for meaningful supply chain partnerships for rural development that could be explored.

From a skills analysis and planning perspective, the merSETA has recognised the importance of localised external economies and company networks, whether formal or informal, and in the previous SSP period, conducted Provincial level Sector Skills Planning. For the planning period in this SSP, although it is not envisaged to repeat the exercise (due to consideration of the expected changes to the SETA landscape) the focus will be on local and regional economies, (in line with the emerging view of the OECD that skills development is a key component of local strategies aimed at creating new jobs The importance of value chain cross-SETA partnerships at local level cannot be over-emphasised, and the merSETA and the Department of Trade and Industry are promoting inter-SETA dialogue, around developing a uniform skills planning and skills development support model for the Special Economic Zones (SEZs) as they are promulgated.

The merSETA is fortunate in that it has a well-developed infrastructure in all regions. The question is around the balance of centralised activities and regional competencies in order best to address the regional agenda. This is also true for the engagements that the merSETA has with rural-based TVET colleges around lecturer capacity-building and appropriate curricula and programmes for rural development.

Disability

The merSETA captures the disability status of learners that it supports across all training. The merSETA has also directly supported initiatives that aim to give people living with disabilities the skills to find employment in the sector. These initiatives are planned to continue and expand in the forthcoming period.

HIV and AIDS

The merSETA is aware of the extremely negative impact that HIV and AIDS has on the productivity (and profitability) of the sector and on the challenges that SMEs have in putting programmes in place to support workers and limit this impact. In line with current trends however, the merSETA has remodeled its HIV and AIDS Project to become a more holistic wellness-oriented programme.

7.7 SECTORAL CONTRIBUTION TO THE PRESIDENT'S OUTCOMES APPROACH TO PLANNING GOVERNMENT'S WORK

7.7.1 MerSETA's contribution to Presidential Outcomes for Minister of Higher Education and Training

The Minister of Higher Education and Training is accountable for Outcome 5 – "A skilled and capable workforce to support an inclusive growth path" that has the following five outputs and measures:

Output 1: Establish a credible institutional mechanism for skills planning

- Develop a standardised framework for the assessment of skills shortages and vacancies in the country.

merSETA contribution: In support of Output 1, the merSETA has submitted an SSP to the DHET that is based on empirical data available, and that is supported by stakeholders. . Additionally, the merSETA has recognised the urgent need to develop an LMI system that will support more detailed sector research in future and thus form the foundation of credible skills planning in the sector.

Output 2: Increase access to programmes leading to intermediate- and high-level learning

merSETA contribution: In support of Output 2, the merSETA has allocated resources to support a range of Adult Education and Training (AET) Programmes in the sector, including Foundational Learning Competence (FLC). In respect of NCV qualifications, the merSETA is currently engaged with the TVET sector to improve the alignment of the curriculum to the needs of the metals, automotive and plastics industries, as well as the provision of workplace experience opportunities for NCV

candidates, linked to access opportunities into apprenticeships. In addition, the new occupational qualifications at NQF level 5 developed by the merSETA, provide exciting articulation and co-operation opportunities from TVET Colleges into Universities of Technology .

Output 3: Increase access to occupationally directed programmes in needed areas and thereby expand the availability of intermediate-level skills (with a special focus on artisan skills)

MerSETA contribution: In support of Output 3, the merSETA's contribution is substantial. It has positioned itself as the leading SETA in respect of artisan development. Through the mechanisms of the AATP, the national Dual System Apprenticeships Project, and related provincial artisan development initiatives, the merSETA is aiming to support the development of 20 000 new artisans over the period 2011/12 to 2015/16. The merSETA will additionally continue to support experiential training in workplaces, particularly for engineering- and artisan-related fields.

Output 4: Increase access to high-level occupationally directed programmes in needed areas

merSETA contribution: In support of Output 4, the merSETA will continue to provide bursaries for occupationally directed studies in higher education, for employed, and maintain its significant direct contribution to the National Student Financial Aid Scheme (NSFAS)

Output 5: Research, development and innovation in human capital for a growing knowledge economy

merSETA contribution: In support of Output 5, , the merSETA has built a range of strategic partnerships at the Higher Education level, that include facilitating partnerships between industry and universities in support of skills development for R&D in the sector. This includes, for example:

- *the partnership with the Tshwane University of Technology around establishing a Chair for Manufacturing Skills Development, with related output of Masters, and PhD candidates based on identifying and supporting skills for technology gaps requiring skills development support that will improve the competitiveness and sustainability of the South African manufacturing value chain;*
- *a partnership with the Centre for Researching and Learning (REAL), at Wits University, focussed on "Sector, Skills and Economic Evolution" based on a Masters, Doctoral and Post-doctoral academic program which seeks to integrate VET,*

industrial policy and evolutionary economics disciplines towards the new skills required by DHET for skills planning purposes;

- *a partnership with the University of Cape Town to establish a new Masters qualification specialising in the field of entrepreneurship linked to the industrialisation of Intellectual Property developed through HEIs in support of new manufacturing and employment opportunities in SA;*
- *a special arrangement with the University of Bremen to develop four South Africans in a PhD scholarship programme dedicated to specialised research into vocational competence diagnostics (COMET) and in-company training efficiency development (QRC) in artisan training and development;*
- *a partnership agreement with Nelson Mandela Metropolitan University (NMMU) that establishes a Chair In Engineering Development. The purpose of this Chair is to: Grow human resources in mechanical engineering, electrical engineering, mechatronics and Industrial engineering in order to enhance the manufacturing industry in the Eastern Cape to enable competitiveness and a growing and sustainable economy. Important aspects of this partnership relate to increasing capacity at TVET Colleges, promoting the women in engineering objective, and career guidance linked to promoting articulation and collaboration between the sub-systems Basic, Further and Higher Education.*

7.8 SUPPORT OF GOVERNMENT'S MEDIUM TERM STRATEGIC FRAMEWORK (MSTF) 2014 – 2019 OBJECTIVES

This section highlights the ways in which this SSP supports Government's 2014 – 2019 MTSF planning framework, strategic focus for the next five years. The MSTF is fundamentally about establishing a Performance Monitoring and Evaluation (PME) framework, and thus it is important to establish and reiterate the ways in which the merSETA seeks to respond to the national MSTF perspective.

The MSTF Strategic Focus

7.8.1 Radical Economic Transformation

"Government's programme of radical economic transformation is about placing the economy on a qualitatively different path that ensures more rapid, sustainable growth, higher investment, increased employment, reduced inequality and deracialisation of the economy. The NDP sets a

growth target of at least 5% a year, and emphasises measures to ensure that the benefits of growth are equitably shared."

- *The merSETA works together with the DHET support arm for the **Strategic Infrastructure Programme**, in terms of determination of skills needs, and has committed close to R100m in grants to support training in identified occupational areas.*
- *In support of sustainability and the **green economy**, the merSETA is a partner of the South African Renewable Energy Technology Centre (SARETEC) at the Cape Peninsula University of Technology (CPUT) around implementing its two flagship "Green" qualifications, namely the Wind Turbine Service Technician and Solar PV Technician.*
- *With regards to **competiveness enhancement in productive sectors of the economy**, the merSETA is committed to supporting industry leadership programmes, and initiatives to boost efficiencies and effect cost-savings for industry sustainability under adverse economic conditions, while remaining commitment and awareness of issues around technology and innovation.* Mention also needs to be of the Master's programme in entrepreneurship, under development in partnership with UCT in support of this objective, as well as the TUT partnership based on the Chair in Manufacturing Skills Development.
- *In terms of addressing **spatial imbalances in economic opportunities**, the merSETA continues to work with the DTI on developing a co-ordinated model and response to the skills development requirements for successful implementation of approved Special Economic Zones (SEZs). This links to the merSETA's ongoing regional, rural, and informal sector support initiatives.*
- *With respect to **expanded opportunities for historically excluded and vulnerable groups, small businesses and co-operatives**,* the merSETA has a dedicated programme (Programme 7, as referenced in section 4, above) that seeks to address this objective, and is supported by the MoU with the DTI. The programmes aimed at black females previously referred to, also link to this objective, as does the Master's programme in entrepreneurship, under development in partnership with UCT.

7.8.2 Improving Service Delivery

"The challenge is therefore to improve the quality and consistency of services, which requires improvements in the performance of the public service...Key priorities aimed at improving the quality of service delivery include institutionalising long-term planning..and forging a disciplined, people-centred and professional public service"

A key objective of the merSETA over the coming period is to improve the efficiency of money spent on training initiatives, both in terms of the reach and quality of training. In this way the merSETA aims to maximise the return on investment of the limited resources available for training and development. This is supported by impact studies, tracer studies, and applied research relating to quality, costs, and benefits of training in association with the University of Bremen. Additionally, the merSETA is committed to improving its own institutional capacity, particularly in the areas required to support an LMI system that will form the basis of improved decision making and democratic processes in the sector. Coupled to this is the implementation of an enterprise-wide project to foster and support innovation in the organisation, and amongst active stakeholders, as well as the development and implementation of an enterprise-wide Monitoring and Evaluation Framework, in co-operation with the Government Technical Assistance Unit of National Treasury.

7.9 SUPPORT OF THE NEW GROWTH PLAN, IPAP, SIPS AND THE NATIONAL SKILLS ACCORD

7.9.1 The New Growth Plan, IPAP and SIPs

Government's New Growth Plan includes support of the manufacturing sector and links this support directly to IPAP, which covers focused support of a range of manufacturing sectors, including the merSETA's metals, automotive and plastics manufacturing subsectors. IPAP (which is in turn supported by other policies such as the APDP, the Metals Beneficiation Strategy, the IDC's Jobs Scheme and the SEZ policy) aims to grow employment in these sectors, which will in turn require an adequate supply of skills to the sector. By focusing on skills development and, in particular, the development of scarce artisan- and engineering skills, the merSETA will be supporting these key national policies and strategies.

Requiring a somewhat more focused approach to artisan, technologist and engineering skills development is the latest government policy supporting the New Growth Plan: government's SIPs. In this regard MerSETA believes that a cluster approach with other relevant SETAs is necessary for a more appropriate and synergistic response to the SIPs. Furthermore, merSETA believes that it will be vitally important that government provides SETAs with timely and regular feedback on the status of SIPs in order to maximise scarce resources and prevent duplication of efforts. The merSETA prepared a detailed response to the DHET's initiative to explore the role of SETAs regarding SIP skills plan assignments. The merSETA has committed assistance and resources to the approximate value of

R100m to support SIPS implementation across a wide spectrum of areas, including among other things:

- Dedicated funding
- Focusing existing programmes on SIPs requirements
- Sharing partnerships, existing networks and co-ordination services
- Sharing of experience and identification of best practices
- Providing information – such as information on current and future skills needs

7.9.2 The National Skills Accord

As referenced in Chapter 1, the National Skills Accord[285] is one of the first outcomes of social dialogue on the New Growth Plan. This accord was entered into between government, business, labour and civil society and was signed in July 2011. The accord consists of eight commitments, Progress by the merSETA, and the sector stakeholders is distinguished between in a merSETA Quarterly National Skills Accord Monitoring Report, as follows:

[285] EDD (2011) The New Growth Path: Accord 1, National Skills Accord.

NATIONAL SKILLS ACCORD COMMITMENT ONE	SETA AND SECTOR COMMITMENT <u>2014 to 2015 FINANCIAL YEAR</u>	COMPLETED / CLOSED OUT	CHALLENGES & PROGRESS MADE <u>APRIL TO JUNE 2014</u>	REPORTING RESPONSIBILITY
To expand the level of training using existing facilities more fully. Business agrees that companies will train beyond their own needs in both artisanal as well as other technical, technician and additional key skills areas and will work with government to fully utilise the training facilities that they have available in the private sector. Companies will work together in sector groupings to identify candidates for such training and third party funding (including tax incentives) for the direct cost of additional trainees.	***SETA COMMITMENT*** • 700 unemployed candidates entering learnerships. • 700 unemployed artisans entering apprenticeships. • Additional 700 candidates across 7 trades committed to SIPS support.	The merSETA / National Skills Fund AATP programme was successfully implemented in seven phases from 2007 to 2014 and the project closure report was submitted in April and outcomes were reported. Existing commitments under the AATP funded by the merSETA will be taken through to completion until September 2016. The total number of artisan learners registered since 2007 is 5049 and the total number certified through AATP is 3591 with the remaining being supported by merSETA to the trade test milestone.	The repeal of the Manpower Training Act and confusion of status around the new Learning Program Regulations negatively impacts on Employer willingness to take on learners – furthermore that the ILO standard of all learners being classified as employees as suggested by the Dept of Labour and NAMB adds further obstacles to employer commitments. Despite increasing financial constraints, the merSETA is on track towards achieving its target of 20 000 artisans under NSDS III by utilizing all four routes to qualified artisan status. Registration for the 2013/14 Financial year was 10, 394, with 7522 completions. The pilot implementation of the Dual System Apprenticeships under the DHET has merSETA supporting 5 companies and 2 TVET Colleges West Coast College and Port Elizabeth FET College.	**merSETA Office**
	SECTOR COMMITMENT • To be agreed	To be completed, pending approval of this template and respective committee ToRs.	*Organised labour and government agree that not all trainees will become employees in the company concerned and a distinction will be drawn between trainees and employees for the purpose of establishing who are entitled to collective bargaining entitlements*	**Chambers and Regional Committees.**

			To be completed, pending approval of this template and respective committee ToRs	

Table 7-7 National Skills Accord: Commitment 1

NATIONAL SKILLS ACCORD COMMITMENT TWO	SETA AND SECTOR COMMITMENT 2014 to 2015 FINANCIAL YEAR	COMPLETED / CLOSED OUT	CHALLENGES & PROGRESS MADE APRIL TO JUNE 2014	REPORTING RESPONSIBILITY
2 (A) ***To make internship and placement opportunities available within workplaces.*** Companies will annually make 12 000 placements/internship spaces available for students who complete their certificates at TVET Colleges, 5 000 internships for 3rd year students at Universities of Technology who need the work experience as part of their qualifications, and opportunities for training exposure in a work environment for at least 16 000	***SETA COMMITMENT*** • 200 unemployed entering internships / workplace experience. • 500 TVET Graduate Placements. • 500 Work-integrated learning (WIL) for	NBI / SACCI project closed out with 50 candidates.	Agreements with TVET Colleges taking NC (V) 4 learners to artisan status are being rolled out at 4 TVET Colleges. merSETA will be able to report on internship placements in the merSETA subsectors in the next quarter, linked to work exposure to TVETC lecturers. merSETA Preliminary research report on promoting effective Work Integrated Learning in the motor industry has been completed and recommendations will be disseminated to enhance uptake in the sector.	**merSETA Office**

lecturers at TVET Colleges.	university candidates and experiential learning.			
.	***SECTOR COMMITMENT*** • To be agreed	To be completed, pending approval of this template and respective committee ToRs	*Agreements between our stakeholders and TVET colleges weree signed to support placement of TVET lecturers in industry, e.g. FORD / Orbit TVET Mtashana TVET and stakeholders in Ladysmith* To be completed, pending approval of this template and respective committee ToRs	**Chambers and Regional Committees.**
2 (B) ***Parties agree to work together to improve both the capacity and quality of TVET Colleges.*** All parties support efforts to ensuring that the education and skills base of the young people not in employment, education or training is raised through adult education and training programmes. They further commit to ensuring that there is proper application of recognition of prior learning and appropriate	***SETA COMMITMENT*** • 24 TVET College partnerships • 200 candidates entered into AET programmes. • 146 CBO's, NGO's, NLPEs and Co-operatives supported.	Achieved.	The most recent project under development is to address young people at risk in Eldorado Park and the project was launched on 24 January 2014. The project provides for technical training and the learners (learners at risk) are fully supported with extensive life skills and access to a clinical psychologist. FLC Pilot Report completed and company level survey with FLC DG recipients completed. merSETA continues to invest in this area. Specific development areas relate to the investigation of co-operatives support in association with the Department of Trade and Industry, which historically has proved a challenge for the SETA.	

methods for this	• 2000 candidates (incl Section 28 and learnership candidates for ARP preparation for the trade test	Pilot RPL Project completed.	The focus will be specifically in line with the Artisan RPL (ARPL) and in support of the national initiative. Also focusing primarily on artisan aids who still require access to qualifications. merSETA is involved in the Artisan RPL process of NAMB and have convened stakeholder groups to develop trade-specific toolkits for the purpose of being used by the ARPL Technical Evaluation Panel and the ARPL advisors.	
	SECTOR COMMITMENT • To be agreed	*The NGO and CBO Project External Evaluation has been completed, and points to the need for capacity-building of social partners, and generally a new approach, by linking them to industry.*	*The merSETA will propose piloting the initial concepts in the ARPL process flow towards non-sector-based trade testing by training 10 advisors and 10 technical specialists to work closely with the pilot TVET Colleges*. Sector level surveys to be undertaken.	**Chambers and Regional Committees.**

Table 7-8 National Skills Accord: Commitment 2

NATIONAL SKILLS ACCORD COMMITMENT THREE	SETA AND SECTOR COMMITMENT 2014 to 2015 FINANCIAL YEAR	COMPLETED / CLOSED OUT	CHALLENGES & PROGRESS MADE APRIL TO JUNE 2014	REPORTING RESPONSIBILITY
To set guidelines of ratio of trainees: artisans as well as across the technical vocations, in order to improve the level of training. It is agreed that companies employing artisans should train sufficient apprentices to ensure the replenishment of this group of skilled workers over time. To this end targeted ratios of apprentice to artisans should be amended and specified, can indicate what levels of training are appropriate.	***SETA COMMITMENT*** Mechanical: 1:3 Manufacturing: 1:3 Electrical: 1:3 Services and Support: 1:3	Old artisan / apprentice ratio's have been phased out.	Implemented.	**merSETA Office**
	SECTOR COMMITMENT • As per SETA commitment, above.	To be monitored.	*merSETA stakeholders support the NAMB DHET approved National Standardised Artisan Learner Workplace Criteria and Guideline and has successfully implemented the newly approved ratios throughout our industry.*	**Chambers and Regional Committees.**

Table 7-9 National Skills Accord: Commitment 3

NATIONAL SKILLS ACCORD COMMITMENT FOUR	SETA AND SECTOR COMMITMENT 2014 to 2015 FINANCIAL YEAR	COMPLETED / CLOSED OUT	CHALLENGES & PROGRESS MADE APRIL TO JUNE 2014	REPORTING RESPONSIBILITY
To improve the funding of training and the use of funds available for training and incentives for companies to train Business commits to improve spending on training that companies undertake beyond the 1% compulsory training levy that is currently in place. Government commits to ensuring that the possible source of incentive funding for training and skills development, i.e. tax credits for unemployed young people, Learnership credits are integrated and their efficiency improved. All businesses will be requested to annually disclose publicly the training spend in absolute terms and as a percentage of payroll through the annual report they	**SETA COMMITMENT** The merSETA has dedicated financial human resources to research and promote skills development solutions linked to sustainability, impact and return on training investment, as detailed in its Annual Performance Plan and Strategic Plan.	With regards to the cost of training, the merSETA has undertaken research that points to the need for a more nuanced approached to the funding of artisan programmes, in view of variations between certain trades, as well as returns to the employer, in some cases from as early as year 2. It has also supported an investigation by National Treasury into artisan training costs with a view on sustainability. The successful Accelerated Artisan Training Programme (AATP), now in its closing phase was founded on the principle of above equilibrium" training.	The merSETA has been approved as the pilot sector for the HSCRC Labour Market Intelligence (LMIP) sub-project under the leadership of the DPRU. A firm level survey is underway. The overarching purpose of the firm survey is to collect information that would inform DHET's strategy on how to address one of their key mandates of skills planning. Therefore, the survey will act as a tool to help establish a credible skills planning mechanism. The Increasing demands by DHET for SETA funds to support emerging national priorities means that this has become a priority area. The merSETA research programme into the costs and benefits of apprentice training. The current number of companies with validated results is 9 and work continues to increase participation The merSETA grants policy provides for discretionary grants to companies exempted from the skills development levy, and importantly, in order to achieve the National Skills Accord objectives, provides that subject to the employer spending more than 3% of the value of their payroll, of which at least 2.5% should be on PIVOTAL programmes on training, the merSETA will consider allocating additional funding.	**merSETA Office**

are required to produce in terms of the Companies Act.				
	SECTOR COMMITMENT • Target to be set following analysis of WSPs and ATRs. The aim is to achieve 3-5% of payroll on training by medium and large companies. .	*Business and labour commits to ensuring that part of the Mandatory Grant (10%) is used for funding workplace training for University of Technology students as well as TVET college graduates.*	*The merSETA is considering an additional criterion in the WSP and ATR to assist in measuring company above equilibrium investment in training.* *The merSETA ensures that its stakeholders are kept abreast of tax incentives and rebates for training and skills development through various mechanisms including provincial skills development forums.*	**Chambers and Regional Committees.**

Table 7-10 National Skills Accord: Commitment 4

NATIONAL SKILLS ACCORD COMMITMENT FIVE	SETA AND SECTOR COMMITMENT 2014 to 2015 FINANCIAL YEAR	COMPLETED / CLOSED OUT	CHALLENGES & PROGRESS MADE APRIL TO JUNE 2014	REPORTING RESPONSIBILITY
To set annual targets for training in state-owned companie	**SETA COMMITMENT** No targets have been set for this commitment, as it does not strictly apply to the merSETA. Nevertheless, the merSETA plays both a facilitative and funding role where needed.		The DENEL Avionics SOC partnership under which 30 learners are supported by the merSETA is progressing well. In addition, DENEL Dynamics has recently become a levy-paying SOC of the merSETA Exploratory talks are underway with Eskom around artisan training, linked to SSETA and EWSETA.	**merSETA Office**
	SECTOR COMMITMENT • For further investigation ito of merSETA levy paying company linkages with SOCs.		• *Survey to be undertaken*.	**Chambers and Regional Committees.**

Table 7-11 National Skills Accord: Commitment 5

NATIONAL SKILLS ACCORD COMMITMENT SIX	SETA AND SECTOR COMMITMENT 2014 to 2015 FINANCIAL YEAR	COMPLETED / CLOSED OUT	CHALLENGES & PROGRESS MADE APRIL TO JUNE 2014	REPORTING RESPONSIBILITY
To improve SETA governance and financial management as well as stakeholder involvement. Social partners commit to high levels of leadership on SETA Boards and sub-committees. Organised labour is committed to appropriate sign off of WSP and ATR documents, and proper mentoring of the young people at the workplace.	**SETA COMMITMENT** 100% of all WSP's and ATR's are signed off by Workplace Training Committees where they are required.	merSETA Governance structures are in place, and functioning adequately. The Governance and Strategy Committee was established. The Charter of the Committee was approved by the AA and members of the Committee were appointed.	Induction of all members of the Accounting Authority is mandatory, as well as their involvement in strategic risk management. .	**merSETA Office**
	SECTOR COMMITMENT	*merSETA sectors, employer associations and organized labour have demonstrated high levels of commitment in this area.*	*Organised labour points out tenacious problems in some sectors and categories of companies.*	**Chambers and Regional Committees.**

Table 7-12 National Skills Accord: Commitment 6

NATIONAL SKILLS ACCORD COMMITMENT SEVEN	SETA AND SECTOR COMMITMENT 2014 to 2015 FINANCIAL YEAR	COMPLETED / CLOSED OUT	CHALLENGES & PROGRESS MADE APRIL TO JUNE 2014	REPORTING RESPONSIBILITY
Align training to the New Growth Path and improve Sector Skills Plans. (A) All parties agree that effective training requires and benefits from a strong basic education system. They agree to set out their joint actions and commitments to strengthen the basic education system in a separate undertaking. (B) The framework of all Sector Skills Plans will be aligned to the New Growth Path and its manufacturing-driver, the IPAP2. Scarce Skills and key skills to improve industrial and workplace performance, as well as clear apprentice targets and matching budgets. Inter-departmental co-operation is encouraged. SSPs to	**SETA COMMITMENT** As per Programme 8 of the APP, R13.6m has been invested in this area. R82m in commitments to support priority occupations for SIPs via the DG system.	Since 2011 several initiatives have been implemented. A range of MoUs, with national and provincial government departments are in implementation phase.	The merSETA has developed a comprehensive career guidance programme incorporating Science, Technology, Engineering and Mathematics (STEM), as The merSETA has signed a memorandum of understanding with the DTI to address these priority areas. Operational Plans for four programme areas under the MOU are currently being developed for implementation in 2014. The merSETA SSP has been fully aligned the NGP and IPAP 2, and key strategies have been translated into quantitative targets. In addition, the merSETA has appointed the Development Policy Research Unit of the Economics Dept of UCT to provide ongoing mentorship, linked to the IRD Advisory Committee.	**merSETA Office**
	SECTOR COMMITMENT • To be	To be completed, pending approval of this template and respective committee ToRs	*Motor Chamber research project includes investigation of potential of technical schools to alleviate skills shortages in*	**Chambers and Regional Committees.**

incorporate the requirements for WSPs.	established.		*the sector.* To be completed, pending approval of this template and respective committee ToRs	

Table 7-13 National Skills Accord: Commitment 7

NATIONAL SKILLS ACCORD COMMITMENT EIGHT	SETA AND SECTOR COMMITMENT 2014 to 2015 FINANCIAL YEAR	COMPLETED / CLOSED OUT	CHALLENGES & PROGRESS MADE APRIL TO JUNE 2014	REPORTING RESPONSIBILITY
To improve the role and performance of TVET Colleges. Businesses to 'adopt' TVET Colleges in order to: • This will foster close working relationships; • ensure that companies are able to support public TVET Colleges; • ensure better alignment between what colleges offer and what industry needs in a specific area; • address constraints to	**SETA COMMITMENT** As per Annual Performance Plan, R73,8m allocated to this area.	merSETA has facilitated interaction between industry and TVET colleges in order to ensure the relevance of TVET curriculum to the needs of industry. An unconditional NSF agreement to support the TVET infrastructure programme has been signed. merSETA forms part of the British Council's Skills for Employability program and has co-funded a senior management exchange	merSETA currently has 24 partnerships with TVET colleges focusing on various support areas. Initiatives include lecturer exposure to industry, development of leadership skills of TVET principals, presence of SETA office on TVET college campus, facilitation of provision of work experience for TVET graduates and dual system apprenticeship implementation at three TVET colleges which also participate in the COMET vocational competence diagnostic project. merSETA is engaging with AFROX to investigate possibilities of forming partnerships in upgrading TVET workshops	**merSETA Office**

accessing workplace exposure; • recognize the need for lecturers to be trained in the latest technological innovations and trends; • support efforts of engineers on their payroll to teach, either part time or as guests, at TVET Colleges to ensure that the learners are able to benefit from their experience; • offer support as may be needed, to the extent possible, such as sponsoring machinery for the training laboratories in their adopted colleges.		programme with the UK.		
	SECTOR COMMITMENT • To be agreed.	Requires full audit of current institutional arrangements between companies and TVETCs and systemic co-ordination	*Despite reluctance from certain sub-sectors, the merSETA has secured the commitment of social partners agree to expand the intake of TVET colleges, both via robust debate in forums, as well as the promulgation of enabling grant guidelines* To be completed, pending approval of this template and respective committee ToRs	**Chambers and Regional Committees.**

Table 7-14 National Skills Accord: Commitment 8

7.10 CONCLUSION

This chapter forms the conclusion of the 2013 update of the merSETA SSP for the period 2013/14 to 2018/19. The five skills development priorities identified by the merSETA represent the culmination of the sector-analysis and stakeholder-consultation processes and are intended to guide the merSETA's strategic objectives as set out in the Strategic Plan. This chapter represents the merSETA's action plan – what it will seek to implement in the last phase of NSDS III.

The merSETA's five skills development priorities are:

- Priority 1: Develop a sector Labour Market Intelligence (LMI) system
- Priority 2: Continued and increased focus on artisan development
- Priority 3: Establish and facilitate strategic partnerships
- Priority 4: Increase the flow of newly skilled workers into the sector
- Priority 5: Develop the skills of the existing workforce

The implementation of these skills development priorities are linked to a range of inter-related strategic issues that arise from the sector analysis, including the cross-cutting imperatives of rural development, sustainable green skills development, and skills development of PWD. It remains imperative that merSETA considers innovative methods to raise the necessary funds through strategic partnerships and to improve the efficiency of spending on training.

As in previous years the widespread concerns at industry level that ambitious national jobs targets will not be met is evident in the ongoing challenges of the current economic context; the decline in employment evident for the manufacturing sector in general and the merSETA sector more specifically; and the downward revision of demand for new employees in the merSETA sector based on the revised demand projection model in this SSP. In this regard, the importance of appropriate local and regional level skills development support to support the informal, emerging and SME sector has been noted. Finally, the merSETA's skills development priorities have been developed and refined after merSETA's responsibilities have been taken into consideration, not only to the sector but also to national social- and economic-development objectives as outlined in policy and strategy documents including NSDS III, the President's outcomes approach to planning for government's work, the New Growth Plan and the National Skills Accord, IPAP and government's MTSF.

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APPENDIX 1

Methodology used to extrapolate WSP data to total sector

The WSPs-ARTs submitted to the merSETA for the financial year 2013/2014 represented approximately 74% of the total levies paid in the sector. As the SDL is a payroll tax levied at 1% of payroll, there is a direct relationship between the SDL paid by an organisation and its number of employees. It is also argued that organisations belonging to the same chambers will have similar wage structures and for this reason the weights are calculated per chamber.

Thus, for the purpose of establishing a sector profile the WSP data were weighted using the following formula:

$W_a = L_a / L_{aw}$

where

W_a = the weight applied to records belonging to a particular chamber

L_a – Total levies paid by organisations in the chamber in 2011/2012

L_{aw} – Total levies paid by organisations in the subsector in 2011/2012 that submitted WSPs

APPENDIX 2

List of Qualifications for which merSETA is the DQP and or AQP

Qualification	DQP	AQP	Status
Lift Mechanic OFO 671204;	merSETA	NAMB	In process at SAQA
Armature Winder	merSETA	NAMB	In process at SAQA
Fitter and Turner OFO 652303;	merSETA	NAMB	In process at SAQA
Mechanical Fitter	merSETA	NAMB	In process at SAQA
Metal Machinist	merSETA	NAMB	In process at SAQA
PLASTICS MANUFACTURING AND SETTER OFO 714208	merSETA	NAMB	In process at SAQA
Lubrication Equipment Mechanic OFO 653310	merSETA	NAMB	In process at SAQA
Millwright	merSETA	NAMB	Ready for submission to QCTO

Mechatronics	merSETA	NAMB	Ready for submission to QCTO
Melter	merSETA	NAMB	Registered
Moulder	merSETA	NAMB	Registered
Patternmaker	merSETA	NAMB	Registered
Electroplater	merSETA	NAMB	Registered
Occupational Trainer	merSETA	NAMB	In process at SAQA
Wind Turbine Service Mechanic	merSETA	NAMB	Ready for submission to QCTO
Vehicle damage quantifier	merSETA	NAMB	At QCTO
Vehicle Painter OFO Code 643202;	merSETA	NAMB	In process at SAQA
Panel beater OFO Code 684904;	merSETA	NAMB	At QCTO
Ship builder & repair OFO 684907;	merSETA	NAMB	Approved by QCTO evaluation committee and recommended to council.
Automotive Electrician OFO Code 671208	merSETA	NAMB	Qualification recommended for

			registration at SAQA.
Automotive Machinist OFO Code 652301;	merSETA	NAMB	At QCTO
Solar Photovoltaic service technician	merSETA	NAMB	AT QCTO
Boat Builder and Repairer OFO 684907	merSETA	NAMB	In SAQA process
Automotive Motor Mechanic OFO code 653101;	merSETA	NAMB	Ready for submission to QCTO.
Diesel Mechanic OFO code 653102;	merSETA	NAMB	Ready for submission to QCTO.
Motor Mechanic- Small Engine Mechanic OFO code 653104;	merSETA	NAMB	Ready for submission to QCTO.
Motor Cycle and Scooter Mechanic OFO code 653103;	merSETA	NAMB	Ready for submission to QCTO.
Heavy equipment Mechanic	merSETA	NAMB	Ready for submission to QCTO.
Diesel Fitter OFO code 653102;	merSETA	NAMB	Ready for submission to QCTO.
Pipe Fitter	merSETA	NAMB	Profiling finalized
Boiler & Pressure Vessel Inspector (Pressure Equipment Inspect) OFO code 311502	merSETA	merSETA	Profiling finalized

Metallurgical or Material Technician (Non Destructive Testing Technician NDTT) OFO code 311702	merSETA	merSETA	Profiling finalized
Armature Winder (Heavy Coil Winder) OFO code 671207	DQP	NAMB	Profiling finalized
Metal Manufacturing Process Control Technician (Production Technology, Metals processing) OFO code 313501	DQP	merSETA	Profiling finalized
Vehicle Trimmer OFO code 648906	DQP	NAMB	Profiling finalized
Engineering Production Systems Worker (Automated Machine Worker)	merSETA	merSETA	Profiling finalized

APPENDIX 3

DRAFT merSETA Grants Policy (Pending Accounting Authority Approval)

DRAFT OF merSETA GRANTS POLICY

LIST OF ABBREVIATIONS AND ACRONYMS

ABET	Adult Basic Education and Training
AET	Adult Education and Training
APP	Annual Performance Plan
ATR	Annual Training Report
DHET	Department of Higher Education and Training
DoL	Department of Labour
FETC	Furth er Education and Training College
FLC	Foundational Learning Certificate
HEI	Higher Education Institution
merSETA	Manufacturing Engineering and Related Services Sector Education and Training Authority
MoA	Memorandum of Agreement
NQF	National Qualifications Framework
NSDS	National Skills Development Strategy
PIVOTAL	Professional, Vocational, Technical and Academic Learning

PPP	Public/Private Partnership
PP	PIVOTAL Planning
PR	PIVOTAL Report
QCTO	Quality Council for Trade and Occupations
RPL	Recognition of Prior Learning
SAQA	South African Qualifications Authority
SARS	South African Revenue Service
SDA	Skills Development Act, 1998 (Act No. 97 of 1998, as amended)
SDL Act	Skills Development Levies Act, 1999
SIPs	Strategic Infrastructure Projects
SMME	Small, Micro and Medium Enterprises
SME	Small and Micro Enterprises
SMS	Seta Management System
SSP	Sector Skills Plan
WIL	Work Integrated Learning
WSP	Workplace Skills Plan

POLICY

It is merSETA's objective to ensure that both mandatory and discretionary grant applications are evaluated and approved in compliance with this policy in relation to the Skills Development Act (Act No. 97 of 1998, as amended), the Skills Development Levies Act, 1999 and related regulations.

It is important to note that this Policy is guided by the The National Skills Development Strategy (III) which includes the seven key developmental and transformation imperatives, which are:

a) Race: prioritise racial inequalities, with a particular focus on giving more opportunities to previously (currently) disadvantaged South Africans;

b) Class: directly related to racial inequalities, provision of skills in a manner that will significantly reduce social inequalities;

c) Gender: referring particular to women, especially black women, specific programmes and strategies to promote gender equality in skills development;

d) Geographically: aim to train rural people for development of the rural areas themselves;

e) Age: must pay particular attention to the training of the youth for employment (those aged under 35);

f) Disability: opportunities for skills training for people experiencing barriers to employment caused by various forms of physical and intellectual disability;

g) HIV & AIDS Pandemic: skills development initiatives must incorporate the fight against this pandemic and management of HIV and AIDS in the workplace by providing accredited Peer Educator Training Programmes.

This Policy will come into effect from 1 January 2015 and will be reviewed annually thereafter, or amended when required due to legislative or other relevant changes.

DEFINITIONS

ACT refers to the Skills Development Amendment Act; 37 of 2008.

APP refers to merSETA Annual Performance Plan.

ATR refers to Annual Training Report which must be submitted by an employer to qualify for mandatory grants.

Discretionary Grants are grants paid to merSETA member companies and other legal enterprises, **at the discretion of the merSETA Accounting Authority**, to encourage stakeholders to contribute towards the achievement and objectives of the National Skills Development Strategy, the merSETA Sector Skills Plan and the Annual Performance Plan.

All unclaimed mandatory grant funds will be transferred to the discretionary grant funding budget by 15 August of each year

Employer means an organisation registered with Companies and Intellectual Property Commission (CIPC)

Experiential Learning means a student that has successfully passed the theory component of their training progamme however will need to obtain industry experience in the relevant career principles, in order to successfully obtain their qualification.

Internship means career specific work experience that one undertakes after one's studies in order to gain the practical experience required to operate and make a positive contribution with respect to the career path one eventually pursues.

Labour Representative means a representative of organised labour within the workplace, appointed by the recognised trade union/unions.

Mandatory Grants means funds designated as mandatory grants to fund the education and training programmes as contained in the Workplace Skills Plan (WSP) and Annual Training Report (ATR) of a company.

PIVOTAL is an acronym which means professional, vocational, technical and academic learning programmes that result in qualifications or part qualifications on the National Qualifications Framework.

Private Education and Training Providers means institutions that are privately owned.

Priority Skills means the skills that have been identified as scarce skills within the relevant chambers. (Refer to annexure A attached)

Public Education and Training Providers means the institutions that are funded from the fiscus and reports to Government.

Public / Private Partnerships means a partnership between a public sector company provider and a legal governmental agency or public education and training provider.

SARS refers to the South African Revenue Service.

Sign off means an in-principle agreement between the employer and its **recognised** trade union/unions on the identified training interventions, in companies who have a recognition agreement with trade unions **or employee representative in companies who employ 50 or more employees and do not have a** recognition **agreement with trade unions**.

Surplus means a favourable residual balance in the statement of financial performance for the financial year ending on 31 March, less commitment to training of learners in programmes funded from discretionary funds.

Training Committee means an established Training Committee for active participation with regard to Skills Development in companies who have a recognition agreement with trade

unions or employ 50 or more employees who do not have a recognition agreement with trade unions.

WSP refers to the Workplace Skills Plan which must be submitted by an employer to qualify for mandatory grants.

LEVY COLLECTION PROCEDURES

4.1 SARS collects the Skills Development Levy on behalf of the Department of Higher Education and Training. The Department of Higher Education and Training re-distributes 80% of the levies collected to SETA's may utilize up to a maximum of 10.5% of total levies paid by the employer as allocated in the Act received in any financial year, to pay for its administration costs in respect of that financial year.

4.2 From 1 April 2013, a SETA will transfer as part of its administration costs and approved in the annual SETA strategic plan, an amount that does not exceed 0.5% of the total levy paid by the employer to the QCTO.

4.3 At the end of each financial year it is expected that a SETA must have spent, or committed, (through actual contractual obligations) at least 95% of discretionary funds available to it by 31 March of each year, and a maximum of 5% of uncommitted funds may be carried over to the next financial year. Any uncommitted funds in excess of the 5% shall be forfeited to National Treasury.

MANDATORY GRANTS

4.4 <u>PURPOSE</u>

4.4.1 The mandatory grants are intended as an incentive to employers to plan and implement training for their employees.

4.4.2 This grant encourages employers to provide data to the SETA on their workforce and skills needs. Data must be accurate and well prepared in order for the SETA to use the information to establish skills needs in the sector for inclusion in the SSP. All training, whether included into the previous financial year's WSP or not, must be reported on in the ATR.

4.5 GUIDELINE FOR SUBMISSION OF MANDATORY GRANTS

4.5.1 The employer must be a merSETA levy paying company and must have submitted a Workplace Skills Plan (**WSP**), Annual Training Report (**ATR**), and PIVOTAL Report **(PR), where applicable.**

4.5.2 It is important to note that it is compulsory for large and medium employers to submit the WSP, ATR, PP and PR to be considered for discretionary grants.

4.5.3 Where employers do not wish to participate in PIVOTAL programmes during the specific reporting period the PIVOTAL Plan is optional.

4.5.4 Mandatory grant applications must be aligned to the merSETA Sector Skills Plan (SSP) with an emphasis on the priority skills identified within the merSETA SSP;

4.5.5 Where available all learning interventions shall be aligned to SAQA registered qualifications and unit standards. All learning interventions outsourced by the company shall be carried out by an accredited training provider; however, preference would be given to Public Institutions where available. Public/Private partnerships will be encouraged;

4.5.6 Mandatory grants will be payable based on the current merSETA funding model and where internal training has occurred, for credit and non-credit bearing programmes, the value of the grant will be R830 per day, per learner up to a maximum of the 20% levy contribution;

4.5.7 In exceptional cases, where learning interventions are not unit standard aligned, the employer is required to provide a written motivation based on company needs for consideration by the SETA, by uploading the motivation onto the documents upload tab, on or before the submission deadline. Where difficulty is experienced with the upload function, companies are required to submit the copy to the dedicated e-mail box (uploads@merseta.org.za) or a merSETA office, on or before the submission deadline.

4.5.8 The SETA will not fund relicensed training undertaken as part of legislative requirements, as this forms part of the employers' legal obligation.

4.5.9 Learning interventions funded through discretionary grants will not form part of the calculation of the mandatory grants but need to be reported on in the WSP, ATR, PP and PR.

4.5.10 There should be a clear correlation between the value of the learning interventions planned and the value of the mandatory grant.

4.5.11 merSETA will monitor the implementation of at least 20% of all mandatory grant submissions. merSETA has the right to verify any report being submitted. The verification will be carried out by the Client Liaison Officers who are placed in the regional offices.

4.5.12 Pro-rata payments will be made to the value spent on training where such value is less than 100% of the available mandatory grants.

4.5.13 Consideration will be given for the inclusion of training implemented and reported in the ATR which was not specified in the WSP. A motivation must be submitted where the company has deviated more than 40% from the WSP submitted and must be signed by labour, where applicable. The motivation must be uploaded onto the documents upload tab, **on or before the submission deadline**, or where difficulty is experienced with the upload function, companies are required to submit the copy to the dedicated e-mail box (uploads@merseta.org.za) or merSETA office, **on or before the submission deadline.**

4.5.14 The decision of whether to approve the application, after verification of the deviation will be at the sole discretion of the merSETA.

4.5.15 All nominated representatives are required to register on the Seta Management System against the specific company and must submit a signed authorisation document to merSETA before access will be granted.

4.5.16 Where the nominated employee/labour representative is not available to sign off on the application, an alternate employee/labour representative must sign off on the application **on or before the submission deadline**. Where difficulty is experienced with the upload function, companies are required to submit the copy to the dedicated e-mail box (uploads@merseta.org.za) or a merSETA office, **on or before the submission deadline.**

4.5.17 Where disputes have been declared, the employer must ensure that the information relating to the dispute is uploaded against the document upload tab, **on or before the deadline**. Where difficulty is experienced with the upload function, companies are required to submit the copy to the dedicated e-mail box (uploads@merseta.org.za) or a merSETA office, **on or before the submission deadline**. The merSETA reserves the right to engage both parties and make a decision based on the collection of evidence.

4.5.18 It is important to note that the submission of a PIVOTAL Plan and PIVOTAL Report forms part of the mandatory grant submission requirements for large and medium companies, but does not constitute automatic awards of discretionary grants for PIVOTAL programmes. The PIVOTAL Plan will however be considered in the awarding of discretionary grants and will be subject to verification process and awarding criteria.

4.5.19 Companies that have submitted the mandatory grant applications within the specified time frame, and have not met the following minimum criteria, may be called upon to submit outstanding information no later than 30 June of each year:

4.5.19.1 Banking details.

4.5.19.2 Confirmation of Labour or employee representative signatories, whichever is applicable.

4.5.19.3 Proof that the inter-Seta transfer application occurred prior to the mandatory grant submission deadline.

4.5.20 I**t is important to note that the above would be the only information that will be considered after 30 April of each year**.

4.5.21 Employers who fail to meet the prescribed criteria, outlined in this document, will forfeit their grant.

4.5.22 Not claimed within the stipulated time frame will be transferred to the discretionary grant by 15 August of each year.

4.5.23 The merSETA CEO, as the Accounting Authority's delegated representative, may grant an extension up to a maximum period of one month from the submission date, as regulated. In order for the merSETA to consider granting extensions, the extension request must be submitted **on or before 30 April** submission date.

CRITERIA FOR APPROVAL

4.5.24 The merSETA must allocate mandatory grants to a merSETA levy paying employer who has submitted their application by 30 April of each year and has met the following criteria:

4.5.24.1 has submitted a Workplace Skills Plan (WSP) and Annual Training Report (ATR), PIVOTAL Plan (PP) and a PIVOTAL Report (PR), if applicable in the required format and;

4.5.24.2 who has registered for the first time in terms of the Skills Development Levies Act, and the employer has submitted an application for a mandatory grant within 6 months of registration;

4.5.24.3 whose levy payments are up to date.

4.5.24.4 **In the case of an employer who has a recognition agreement with a trade union or unions in place, there must be evidence provided tat the WSP and ATR have been subject to consultation with the recognized trade unions and the WSP and ATR must be signed off by the labour representative appointed by the recognized trade union unless an explanation is provided.**

4.5.24.5 The WSP, PP, ATR and PR must be signed off by the appointed labour representative where a recognition agreement exists between the employer and labour, irrespective of the size of the company.

4.5.24.6 Where at the time of submission, the labour representative or employee representative (whichever is applicable) is not available to sign off electronically, the sign-off page must be printed, signed and uploaded against the documents upload tab, **on or before the submission deadline**.

4.5.24.7 Where difficulty is experienced with the upload function, companies are required to submit the copy to the dedicated e-mail box (uploads@merseta.org.za) or a merSETA office, **on or before the submission deadline**. The merSETA reserves the right to verify the authenticity of this information.

4.5.24.8 Where there are no labour/union representatives, the Training Committee must appoint an employee representative to sign off on the application, **on or before the submission deadline**. The merSETA reserves the right to verify the authenticity of this information.

PAYMENTS OF MANDATORY GRANTS:

4.5.25 Shall be up to a maximum of 20% of the total levies paid by the employer during the financial year.

4.5.26 Shall occur once the mandatory grant application is approved against the criteria as set out by the merSETA.

4.5.27 Will be paid to the employer at least quarterly in arrears.

APPLICATION SYSTEMS PROTOCOLS

4.5.28 The merSETA will make the Seta Management System available for electronic submission for the following:

4.5.28.1 Mandatory grant application will be available for electronic submissions from 1 February 2015 until 30 April 2015 deadline.

4.5.28.2 merSETA non levy paying companies, levy paying SME's and other legal entities that are not required to submit Mandatory Grant application may apply for PIVOTAL Programmes through the discretionary grant window application, which will be opened on 1 May and close on 31 May every year, and;

4.5.28.3 All merSETA companies and other legal entities may apply for Non PIVOTAL Programmes through the discretionary grant funding window which opens on 1 May and closes on 31 May every year.

DISCRETIONARY GRANTS

The purpose of discretionary grants is for the merSETA to ensure the implementation of the SSP. **Discretionary grants are allocated at the sole discretion of the merSETA Accounting Authority** to achieve its objectives in relation to the development of the sector. The purpose of this policy is to set out how the merSETA will achieve the implementation of the SSP. A maximum of 7.5% may be utilized by the merSETA for administrative costs for the delivery and implementation of merSETA discretionary grant initiatives.

ELIGIBILITY FOR DISCRETIONARY GRANTS

A discretionary grant may be paid to a legal entity including –

6.1.1. a public education and training institution;

6.1.2. an employer or enterprise within the jurisdiction of a SETA, including an employer or enterprise not required to pay a skills development levy in terms of Skills Development Levies Act; small and micro enterprises, Community Based Organizations (CBOs), Co-operatives and;

6.1.3. trade unions in the merSETA Sector, for the benefit of educating and developing their members on Skills Development related programmes which forms part of their duties as shop stewards and which is beneficial to the merSETA Sector;

6.1.4. all learning programmes funded through the mandatory grant funding process shall not be funded from discretionary grant funding.

PREPARATION FOR DISCRETIONARY GRANT APPLICATIONS

The following important considerations should be taken into account in the planning process for submission:

6.1.5. the National Skills Development Strategy (III) and its 8 goals, which are:

6.1.5.1. establishing a credible institutional mechanism for skills planning;

6.1.5.2. increasing access to occupationally directed programmes;

6.1.5.3. promoting the growth of a public TVET college system that is responsive to sector, local, regional and national skills needs and priorities;

6.1.5.4. addressing the low level of youth and adult language and numeracy skills to enable additional training;

6.1.5.5. encouraging better use of workplace based skills development;

6.1.5.6. encouraging and supporting co-operatives, small enterprises, worker initiated, NGO and community training initiatives;

6.1.5.7. increasing public sector capacity for improved service delivery and supporting the building of a developmental state and;

6.1.5.8. building career and vocational guidance.

6.1.6. The National Skills Accord which can be summarised as:

6.1.6.1. expanding the level of training using existing facilities more fully;

6.1.6.2. making internships and placement opportunities available within workplaces;

6.1.6.3. setting guidelines of ratios of trainees to artisans, as well as across technical vocations, in order to improve the level of training, as outlined in the merSETA ETQA Policy;

6.1.6.4. improving the funding of training and the use of funds available for training and incentives on companies to train;

6.1.6.5. setting annual targets for training in state-owned enterprises;

6.1.6.6. improving SETA governance and financial management as well as stakeholder involvement;

6.1.6.7. aligning training to the New Growth Path and improve Sector Skills Plans;

6.1.6.8. improving the role and performance of TVET Colleges.

(Refer to:http://www.economic.gov.za/publications/new- growth-path-series/82-accord-1-national-skills-accord)

DISBURSEMENT OF DISCRETIONARY GRANTS

6.1.7. Discretionary grants to be paid by merSETA, in terms of the grant regulation, may be funded from:

6.1.7.1. surplus administration funds;

6.1.7.2. unclaimed mandatory grants;

6.1.7.3. interest and penalties received;

6.1.7.4. interest earned on investments;

6.1.7.5. surplus contributions received from public service employers in the National or Provincial spheres of Government;

6.1.7.6. any other money received by merSETA in terms of Section 14(10) (f) of the Act.

6.1.7.7. 49.5% of the total levies paid by the employer in terms of Section 3(1) of the Skills Development Levies Act during each financial year.

6.1.8. merSETA will review and update the Annual Performance Plan (APP) to reflect the allocation of discretionary grants in a manner that prioritizes the offering of learning programmes that support the SSP.

The annual discretionary grant budget will be stipulated in the merSETA Annual Performance Plan. The disbursement of grants will be carried out in the following manner:

i. At least 80% of the available discretionary grants must be allocated to PIVOTAL programmes;

ii. a maximum of 20% will be allocated to funding of programmes other than PIVOTAL programmes.

PIVOTAL PROGRAMMES

The following learning programmes will be regarded as PIVOTAL Programmes:

a. Adult Basic Education and Training 4 / Adult Education and Training, which includes adult Matriculants, for employed learners only

b. Apprenticeships

c. Apprenticeships for "The Class of 2014 Matriculants"

d. Bursaries at Further and Higher Education and Training Institutions for employed learners only. These bursaries will exclude learners linked to a discretionary grant, where part of the learning programme includes attending studies.

e. Graduate Development (UoT and University graduates): Internships

f. Learnerships

g. Public FETC graduate placement for a minimum of three months for workplace exposure

h. Registered merSETA Skill Programmes which will not be applicable for skills programmes for the purpose of relicensing training undertaken as part of legislative requirements, as this forms part of the employers legal obligation;

i. Recognition of prior learning (RPL)

j. Work Integrated Learning (Experiential learning)

k. Worker Initiated Programmes

Bridging Programmes that are NQF aligned within the scope of merSETA Sector.

6.1.9. Employers who have received funds from the merSETA for employed learners on learning programmes, may not have their conditions of employment altered in any form.

6.1.10. merSETA levy paying companies are required to, as part of their mandatory grant application, submit applications for PIVOTAL programmes by 30 April of each year.

6.1.11. In order for large and medium merSETA levy paying companies to be considered for discretionary grants for PIVOTAL programmes, it is compulsory for these companies to, as part of their mandatory grant application, submit their PIVOTAL plan by 30 April of each year. Failure to do so will result in these companies being excluded from the discretionary grant awarding process for PIVOTAL programmes.

6.1.12. merSETA exempted companies, merSETA SMEs and all other legal entities that have not submitted WSP, ATR, PIVOTAL plan and PIVOTAL report during the mandatory grant submissions, will have an opportunity to apply for discretionary grants for PIVOTAL programmes during the funding window which will open on 1 May and close on 31 May of each year.

It is important to note that this applies to large and medium merSETA levy paying companies, as outlined in 6.3.5.

6.1.13. 70% of PIVOTAL Programme allocations will be made available for PIVOTAL programmes for those large and medium companies that submitted the WSP, ATR, PP and the PR.

6.1.14. 30% of PIVOTAL Programme allocations will be made available for PIVOTAL programmes, for those non levy paying companies, SMEs and other entities that submits the PIVOTAL

Programme requirements through the discretionary grant funding window, which will open on 1 May and close on 31 May of each year

6.1.15. The criteria set out below will be used to evaluate the applications for discretionary grants for PIVOTAL programmes:

6.1.15.1. The National Skills Development Strategy (III) includes the seven key developmental and transformation imperatives, which are:

h) Race: prioritise racial inequalities, with a particular focus on giving more opportunities to previously (currently) disadvantaged South Africans;

i) Class: directly related to racial inequalities, provision of skills in a manner that will significantly reduce social inequalities;

j) Gender: referring particular to women, especially black women, specific programmes and strategies to promote gender equality in skills development;

k) Geographically: aim to train rural people for development of the rural areas themselves;

l) Age: must pay particular attention to the training of the youth for employment (those aged under 35);

m) Disability: opportunities for skills training for people experiencing barriers to employment caused by various forms of physical and intellectual disability;

n) HIV & AIDS Pandemic: skills development initiatives must incorporate the fight against this pandemic and management of HIV and AIDS in the workplace by providing accredited Peer Educator Training Programmes.

(Refer to: www.dhet.gov.za)

6.1.16. Awarding Criteria for PIVOTAL Programmes.

Awarding Criteria for PIVOTAL Programmes
a. Submissions for large and medium companies occur during the mandatory grant application process, where the company would complete the PIVOTAL Plan and consideration is made during the awarding process. **Large and medium merSETA levy paying companies, who have not submitted PIVOTAL plans during the mandatory grant application, will not be considered for discretionary grants for PIVOTAL programmes.** b. Where labour has signed off on the mandatory grant application but the application has not been approved, the PIVOTAL plan will be considered when awarding discretionary grants**.** c. Award is given via a MoA to the employer and other stakeholder entities, where the employer takes full responsibility for the learner. d. The funds are distributed to the employer with specific deliverables and measurements, which will include the link to an accredited Public Education and Training Institution. e. Where no suitable Public Institutions exist, the employer may utilise the services of an accredited Private Provider. Public/Private partnerships will be encouraged. f. merSETA monitoring and quality assuring of the implementation of the learning programmes. g. Priority will be given to the priority skills identified in the merSETA Annual Performance Plan and SSP. (Refer to annexure A attached) h. All claims must be in respect of learners who are South African citizen and who is in possession of valid South African Identity document. i. Further grant awards will depend on progression on delivery of previous grant awards as follows:

DISCRETIONARY GRANT WINDOW	SATISFACTORY PROGRESSION
2 & 3	Closed out
4	All learning areas closed out except for: • Apprentices where 3rd tranche payments for progress has been paid out • NQF level 2 – 4 learnerships ending in a trade test where progress grants for level 3 learners have be paid
5	All learning areas closed out except for: • Apprentices where 3rd tranche payments for progress has been paid out
Year 14	Second tranche payment of all learning areas have been paid

j. All withdrawals will be investigated to determine reasons for the withdrawal and how it could affect future discretionary grant awards.

k. Where necessary, possible consideration will be given to progression of learners on learnerships.

l. All learning programmes funded through the mandatory grant funding process shall not be funded from discretionary grant funding.

m. Large and medium organisations who are required to submit an Employment Equity Plan must indicate how the application for grants will contribute toward the organizations Employment Equity Plan, per occupational category. No alignment between the grant application and the Employment Equity |Plan will result in a non award of PIVOTAL programmes

n. Public Institutions may apply directly for PIVOTAL programmes through the discretionary grant window.

6.1.17. In order to achieve the National Skills Accord objectives, we propose that subject to the employer spending more than 3% of the value of their payroll, of which at least 2.5%

should be on PIVOTAL programmes on training, the merSETA could consider allocating additional funding.

6.1.18. The merSETA Accounting Authority may determine and allocate discretionary grants for PIVOTAL programmes in the following learning programmes, but not limited to:

PIVOTAL Programmes **(80% of available discretionary grants)**	**Value**
Artisan Development:	
NQF level 2 – 4 learnerships ending in a trade test; and apprenticeships	**R139,350.00** payable in tranches for the duration of the training programme per learner until successful completion of the trade test

Learnerships	**R16,103.88** per learner per level. Plus additional learner allowance NQF L1 = R30,969.00 which includes the R14,865.12 per annum learner allowance NQF L2 = R38,401.56 which includes the R22,297.68 per annum learner allowance. NQF L3 = R45,834.12 which includes the R29,730.24 per annum learner allowance. NQF L4 or higher = R53,266.68 which inludes the R37,162.80 learner allowance per annum
Recognition of prior learning (RPL)	A maximum of **R18,581.40** per candidate for RPL assessment process A maximum of **R15,484.50** for GAP training based on submission of GAP training plan and outstanding unit standards.
Skills Programmes	**R260.14** per credit per learner (capped to the maximum of 50 credits) including RPL advisor
Workplace Experience	Basic Grant to company for learner allowance **R29,700.00** per learner for six a month period.
Public FETC graduate placement	Learner placed for a minimum of three months for workplace exposure: **R19,394.64**

Graduate Development (Internships) UoT and University graduates	Basic Grant to company: **R64,800.00** per annum per learner

PIVOTAL Programmes **(80% of available discretionary grants)**	**Value**
Adult Basic Education and Training level 4 / Adult Education and Training which includes adult Matriculants, for employed learners only	Basic Grant to company: **R2,160.00**
Bursaries at Further and Higher Education and Training Institutions for employed learners only	Basic Grant: **R17,500.00**

6.1.19. Based on the available discretionary grant budget, consideration will be given to awarding 40% of the levies received from merSETA levy paying companies as a discretionary grant for PIVOTAL programmes. **The awarding will be at the sole discretion of the merSETA**

6.1.20. The following process will be carried out when the allocations are made:

CATEGORY	CRITERIA	COMMENTS
Established Category **Top Training Clients** **60% of the total**	For an employer to be categorised in the Established Category, employers would have met the following criteria: Are up to date with levy payments (applicable to merSETA levy paying employers)	60% of the total surplus budget available will be allocated to established employers on condition that: Companies must be encouraged that 2% of learners applied for and

CATEGORY	CRITERIA	COMMENTS
surplus funds will be allocated	Have received Mandatory Grants payments for last three years (if applicable) Have an average pass rate of 65% in implementation of learning programmes including apprenticeships according to the companies training track record It is important to note that an active training committee has to be in place if the employer has 50 or more employees and where there is a recognised trade union or unions, they must form part of the training committee. Have a learner progression or placement average of 50%	enrolled are persons with disability. Employer to indicate that work integrated learning or workplace learning for persons with disability can take place for primary or non-primary focused learning. Employers awarded 10 or more awards will be encouraged to participate in merSETA's initiative to develop lecturers, within Public FETCs, by indicating the availability of such workplaces to train such lecturers.
Developmental Category **Developmental Clients** **30% of the total surplus funds will be allocated**	The Developmental merSETA levy paying companies have a training record. However there are gaps where the employer needs to be developed in order to move to the Established Category. It is important to note that an active training committee has to be in place if the employer has 50 or more employees and where there is a recognised trade union or unions, they must form part of the training committee.	30% of the total surplus budget available will be allocated to developmental employers on condition that: Employers to indicate that work integrated learning or workplace learning for persons with disability can take place for primary or non-primary focused learning.
New Business Category	The New Business Category companies are companies with limited exposure to skills development or have never worked with the	10% of the total surplus budget available will be allocated to New Business employers.

CATEGORY	CRITERIA	COMMENTS
10% of the total surplus funds will be allocated	merSETA before including non levy paying companies. It is important to note that an active training committee has to be in place if the employer has 50 or more employees and where there is a recognised trade union or unions, they must form part of the training committee.	Non levy paying companies in this category will only be considered for a discretionary grant award from the 10% surplus.

The above categories will be reviewed and updated yearly.

DISCRETIONARY GRANT REQUIREMENTS:

6.1.21. Priority will be give to the scarce and critical skills identified in the merSETA Sector Skills Plan and APP (Refer to annexure A Attached)

6.1.22. ***All applications must be in respect of learners who are in possession of a valid South African Identity document and are South African citizens.***

6.1.23. The merSETA may not pay the Discretionary Grant to an employer unless the employer;

6.1.23.1. has registered with the Commissioner in terms of the SDL Act;

6.1.23.2. has paid the levies directly to the South African Revenue Service (SARS) in the manner and within the period determined in the SDL Act;

6.1.23.3. is up-to-date with levy payments to SARS at the time of approval and in respect of the application period, or

6.1.23.4. is exempted from paying the skills levy. Companies with 50 or more employees are required to have an active Workplace Training Committee. The company is required, during the application process, to upload a copy of the most recent signed minutes of that meeting, as proof that consultation has taken place. It is important to note that the minutes must be signed off by both the employer and labour representative and uploaded by the **submission deadline**.

6.1.24. In the case of an employer who employs 49 and less employees that has a recognition agreement with a trade union/ unions in place, there must be evidence provided that the discretionary grant applications has been subject to consultation with the recognised trade unions and the discretionary grant application must be signed off electronically, by the labour representative appointed by the recognised trade union/unions. Where at the time of submission, the labour representative is not available to sign off electronically; the sign off page must be printed, signed and uploaded against the documents upload tab. Where difficulty is experienced with the upload function, companies are required to submit the copy to the dedicated e-mail box (uploads@merseta.org.za) or a merSETA office, **on or before the submission deadline.**

6.1.25. In the case of all learning programmes, the merSETA reserves the right to conduct a verification exercise to determine that all requirements are in place to deliver these programmes (equipment, subject matter experts, training provider accreditation, etc)

6.1.26. Once the awarding process has been finalized, merSETA will enter into a Memorandum of Agreement (MoA) with the relevant employers or other entities.

DISCRETIONARY GRANT DELIVERABLES AND PAYMENTS

The deliverables and payment tranches will be linked to milestones.

a) The below table will be the deliverable and payment tranches for learners registered on individual learnerships:

Tranche %	Milestones
First Tranche: 10% of the MoA value	Signed Memorandum of Agreement (MoA) accompanied by the signed merSETA approved implementation plan .
Second Tranche: 30% of the value for individual learning intervention as per Annexure A of the MoA	On registration of a learner on the official merSETA SMS system. Payments will be effected based on individual learner being registered

Tranche %	Milestones
Third Tranche: 30% of the value of the individual learning intervention as per Annexure A of the MoA	Progress Monitoring Report and/or Moderation Reports indicating 50% completion of individual learning intervention/s for each learner Payments will be effected based on individual learner meeting the required milestones, as set out in the relevant agreement.
Fourth Tranche: 30% of the value of the individual learning intervention as per Annexure A of the MoA	100% successful completion of individual learning intervention. Closure reports or approval on the official merSETA SMS system by the Clients Relations Manager indicating completion of the individual learning intervention. Payments will be effected based on individual learner successfully completing the learning intervention according to the set milestone

b) The deliverable and payment tranches which will be linked to milestones as listed below in the following learning areas:

Recognition of prior learning,

TVET Graduate Placement,

ABET/AET Level 4,

Bursary candidates,

Skills Programmes

Tranche %	**Criteria and Documents Required**
First tranche: 10% of the Agreement value	Signed Memorandum of Agreement (MoA) accompanied by the signed merSETA approved implementation plan.
Second tranche: 30% of the value for individual learning intervention as per annexure A of the Agreement	On registration of a candidate on the official merSETA SMS system or official merSETA registration documents. Payments will be effected based on individual learners being registered
Final tranche: 60% of the value of the individual learning intervention as per annexure A of the Agreement	100% successful completion of individual learning intervention. CLO site visit closure report or approval on the official merSETA SMS system by the CRM indicating completion of the individual learning intervention. Payments will be effected based on individual Learners successfully completing a trade test.

c) The deliverable and payment tranches which will be linked to milestones as listed below in the following learning areas:

Experiential Learners,

Graduates (Internships)

Tranche %	Criteria and Documents Required
First tranche: 10% of the Agreement value	Signed Memorandum of Agreement (MoA) accompanied by the signed merSETA approved implementation plan.
Second tranche: 45% of the value for individual learning intervention as per annexure A of the Agreement	On registration of a candidate on the official merSETA SMS system or official merSETA registration documents. Payments will be effected based on individual learners being registered
Final tranche: 45% of the value of the individual learning intervention as per annexure A of the Agreement	100% successful completion of individual learning intervention. CLO site visit closure report or approval on the official merSETA SMS system by the CRM indicating completion of the individual learning intervention. Payments will be effected based on individual Learners successfully completing a trade test.

d) The deliverable and payment tranches which will be linked to milestones for apprentices and learners on NQF level 2-4 learnerships ending in a trade test is listed below:

Tranche %	Milestones
First Tranche: 25% of the MoA value	Signed Memorandum of Agreement (MoA) accompanied by the signed merSETA approved imp plan.
Second Tranche: 25% of the value for individual learning intervention as per Annexure A of the MoA	On registration of a learner on the official merSETA SMS system. Payments will be effected based on individual learners being registered
Third Tranche: 25% of the value of the individual learning intervention as per Annexure A of the MoA	Progress Monitoring Report and/or Moderation Reports indicating 50% completion of individual learning intervention/s for each learner Payments will be effected based on individual learner meeting the required milestones, as set out in the relevant agreement.
Fourth Tranche: 25% of the value of the individual learning intervention as per Annexure A of the MoA	Closure reports or approval on the official merSETA SMS system by the Clients Relations Manager indicating completion of the individual learning intervention. Payments will be effected based on individual learners successfully completing the trade.

In addition to the above, monitoring visits will occur where merSETA staff will verify the quality of training against set criteria.

NON PIVOTAL PROGRAMMES

6.1.27. The merSETA may from time to time, identify special projects with special rules. The call for the intention to participate will be published as the need arises.

6.1.28. All discretionary funds disbursed in support of non qualification based projects in the manufacturing sector will constitute not more than 20% of discretionary funds disbursed in each financial year.

Non- PIVOTAL Programmes **(20% of available discretionary grants)**
1. Lecturer development
2. Adult Education and Training (AET) previously known as Adult Basic Education and Training (ABET) - Levels 1 – 3
3. Small and Micro enterprise development
4. Rural development programmes
5. Career Awareness
6. Establishing and acknowledging credible partnerships (e.g. Public FETCs)
7 Youth development programmes
8 Maths and Science – grade 9 – 12
9 Learning material development
10 Stakeholder support and capacity building
11 Co-operatives, CBOs, NGOs and CBCs

12 People with disabilities
13 Green Skills Development and alignment
14 Foundational Learning Competence
15. HIV & AIDS accredited Peer Educator Programme funding
16. Worker Initiated Programmes

6.1.29. All applications must be submitted electronically on the Seta Management System based on the submission criteria.

SUBMISSION GUIDELINES

6.1.30. The Discretionary Grant application date will be 1 May and close on 31 May of each year as determined by the Accounting Authority and included in the discretionary grant advertisements.

6.1.31. The Discretionary Grant application portal is available on the merSETA website. Electronic submission is compulsory. (www.merseta.org.za).

6.1.32. Large and medium merSETA levy paying employers may apply for non-PIVOTAL programmes through the discretionary grant window. Where a recognition agreement is in place, the appointed labour representative from the relevant trade union/unions must sign off electronically, **on or before the submission deadline.** Where at the time of submission, the labour representative is not available to sign off electronically; the sign off page must be printed, signed and uploaded against the documents upload tab. Where difficulty is experienced with the upload function, companies are required to submit the copy to the dedicated e-mail box (uploads@merseta.org.za) or a merSETA office, **on or before the submission deadline**.

6.1.33. Other legal entities, SMEs and merSETA exempted employers may apply (exempted companies must submit a copy of their SARS return indicating the UIF [unemployment Insurance Fund] number). And

6.1.34. Trade unions in the merSETA Sector, for the benefit of educating and developing their members on Skills Development related programmes which forms part of their duties as shop stewarts and which is beneficial to the merSETA Sector;

6.1.35. merSETA employers should use the 49% of levies paid in as a guide when submitting their PIVOTAL Plans for discretionary grant purposes.

6.1.36. Employers are assured that all information received will be treated with the highest regard for confidentiality. Information received in the grant applications is aggregated for the purposes of research and planning.

APPEALS PROCESS

6.2. Appeals regarding an award of a grant must be submitted in writing to the Chief Executive Officer (ceo@merseta.org.za) detailing the reasons for the appeal, within 14 days of receipt of the award.

6.3. merSETA will investigate the matter relating to the dispute and will provide feedback to the relevant parties within 30 days of receipt.

6.4. The decision of the CEO will be final.

ADMINISTRATIVE REQUIREMENTS

6.5. It is the responsibility of the employer/organization to supply the merSETA with an original cancelled cheque and/or original bank statement reflecting an original bank stamp, which must not be older than 3 months, and a confirmation of the banking details on a company letterhead signed by an authorised representative.

6.6. The merSETA will validate requests for changes to banking details.

6.7. The merSETA reserves the right to request supporting documentation to verify compliance with the conditions of each project and/or grant rule/s prior to effecting payment and;

6.8. Discretionary grant application documents must be completed in full for the application to be considered.

SYSTEMS

6.9. The merSETA will make the Seta Management System available for electronic submission for the following:

6.9.1. Mandatory grant will be available from 1 February each year for 30 April deadline for the same year.

Large and medium merSETA levy paying companies to be considered for discretionary grants for PIVOTAL programmes, it is compulsory for these companies to, as part of their mandatory grant application, submit their PIVOTAL plan by 30 April of each year. Failure to do so will result in these companies being excluded from the discretionary grant awarding process for PIVOTAL programmes.

6.9.2. merSETA non-levy paying companies, merSETA levy paying SME's and other legal entities that are not required to submit a Mandatory Grant for PIVOTAL Programmes will be opened on 1 May and close on 31 May every year and;

6.9.3. all merSETA companies and other legal entities for Non PIVOTAL Programmes.

6.9.4. Other discretionary grants projects will be made available as and when the need arises.

COMMUNICATION

6.10. The merSETA will make use of the following communication channels:

a) merSETA website
b) Stakeholder publications
c) Newspapers
d) E-mail blitz
e) Skills Development Forums/SDF Forums
f) Road shows
g) Regional offices
h) All official merSETA meetings