

## ANNEXURE A: IMPACT STUDY



**merSETA**

MANUFACTURING, ENGINEERING  
AND RELATED SERVICES SETA

### **Motor Research Project:**

Employment and Educational and Skills Audit of the  
merSETA Motor Chamber

### **First interim report: Impact study**

Submitted on 1 October 2012

*Contract Research &  
Consulting Services*



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## 1 INTRODUCTION

Business Enterprises at the University of Pretoria (BE at UP) was appointed to conduct high impact research for the Motor Chamber of merSETA. Decision makers at merSETA realized that there are various challenges pertaining to skills required by the Motor Chamber, especially from a future perspective.

This is the first interim report based on information available at this stage. According to the approved delivery schedule the impact assessment report should be submitted on 1 October 2012. It is clear that the project has a strong future perspective that extends up to 2020. It was therefore viewed as important to assess the impact of changes foreseen up to 2020 on the skills required by die Motor industry. Since a reasonable amount of work has been completed on the entire project, it was decided to include all aspects of the Employment and Educational and Skills Audit in this report to further contextualise the impact of the anticipated changes on skills requirements and development interventions. As far as possible recommendations to further improve the current SSP have been included in this report.

Desktop research forms the major input into this first interim report since it was not yet possible to conduct consultative sessions (focus groups due to the unavailability of key stakeholders. In the next report, all available consultative and qualitative information will be included.

merSETA, the Manufacturing, Engineering and Related Services Sector Education and Training Authority is one of the 23 SETAs established through the Skills Development Act [no. 96 of 1998]. It facilitates skills development in the following sub sectors:

- Metal and engineering.
- Auto manufacturing.
- Motor retail and component manufacturing.
- Tyre manufacturing and Plastics industries.

Together the five sub-sectors comprise approximately 44000 companies, with a workforce of approximately 600 000. The total levy income is approximately 600 million rand. This important research project only focuses on the Motor Chamber. Based on the findings of the final research report, merSETA could well decide to extend the project to the other chambers.

At the outset it is deemed necessary to briefly contemplate the merSETA's role in terms of education and training. Like most South African SETAs, the existing MerSETA

doesn't train learners, but rather facilitates the process that enables them to train. This includes specifically:

- paying discretionary grants to enable learners to gain training
- registering moderators and assessors who ensure that the level of education is up to standard required
- identifying skills that are needed in the industry, particularly those that are scarce
- accrediting training providers so that those institutions and organisations offering college courses, and any other type of short course, management course and so on, is up to standard
- monitoring the quality of training within this particular sector
- implementing projects that will help to close the skills gap as quickly as possible

In the final report, specific recommendations will be made to optimise the above and other skills development enablers.

## **2 OBJECTIVES**

The research objective has been defined as follows in the Service Level Agreement:

This research will provide an initial overview of the nature, form and context of educational and skills levels and profile of workers in the Motor Chamber of the merSETA. This initial overview will detail the current nature of skills with a view to informing the chamber about its key priorities in the current NSDS 111 period. This initial project will explore inter alia issues related to:

- An overview of the nature of the educational levels, formal or informal, in the merSETA Motor Chamber
- An overview of the employment profile of the merSETA Motor sector
- A skills profile of the sector in terms of demographics: race, gender, disability, geographical spread( urban/rural), occupational and employment level
- An overview of skills needs with a focus on scarce and critical skills identified in the sector over the past 3-5 years and the sources/methodology used to identify these

The research will provide a baseline of the Motor sector in merSETA and identify key areas for skills development for this merSETA Chamber.

Specific deliverables were defined as follows:

- An educational and skills audit of the sector (both formal and informal qualifications). This skills audit function will focus on the skills required by Motor sector based on desktop research and stakeholder consultation. At organisational level, this broad skills audit should be followed up with skills audits focusing on individuals in specific positions after completion of this research project.
- Employment profile of the sector (present and forecasted) as agreed, not additional quantitative research through Workplace Skills Plans and other means will be done at this stage. Data updates will only be done if sufficient information is readily available in electronic format.
- Demographical skills profile (race/ gender/disability). Equity considerations are extremely important from a transformation policy perspective. Sometimes scarce skills are aggravated by insufficient numbers of competent Historically Disadvantaged South Africans.
- Skills required and needs overview (linked to scarce and critical skills). Information contained in the existing SSP will be considerably updated
- Contextualize the Skills Development baseline for sector and identify key gaps areas and give recommendations. This important step will be done after an integration of all available information.
- Assessment of the completeness of the current SSP and submission of proposals to update. This step will also be done towards the end of the research project when all information has been integrated.
- Scarce and Critical Skills Identification, through desktop research and focus groups. The current SSP will be used as basis for the update. Will be done as stated above.
- Impact of the recession and skills development implications through desktop research. The 2020 landscape as completed through desktop research will be key indicator of the impact of the recession and other drivers of change.
- Assessment of the impact of global context on the sector/sub-sectors with specific reference eastern countries (China, India, Korea, etc. through desktop research. Indications are that economic power is shifting towards Eastern countries and the impact of this shift should be clearly assessed on the Motor industry.
- Supply and demand analyses through desktop research and focus group contributions. Focus group information is of critical importance and will be followed up where necessary with desktop research.

- Assessment of delivery institutions and curricula through desktop research. A key focus here would be on the supply of skills by institutions such as schools and FET Colleges.
- Development of drivers of change towards 2020 with specific reference to the green agenda and social media. The 2020 landscape will be exploited in general with specific focus on Motor industry sensitive parameter such as the green agenda and social media.
- Evaluation of existing key skills development programmes (qualifications) in terms of compliance with 2020 requirements. This assessment will be based on compliance with key content concepts based on available electronic material only. All relevant qualifications registered on the SAQA database will be evaluated. Key words based on skills requirements will be selected information searches will verify if they are contained in unit standards.
- Skills development strategy proposals based on a PESTEL and SWOT analysis. A much focused strategic approach will be followed throughout the research project with specific focus on the proposed strategy in the final chapter.
- Identification of SSP supportive research projects. Extensive experience has shown that the quality of SSPs can be improved considerably through additional research projects aimed at improving people empowerment and continuous skills transfer. All relevant additional research required will be included in the final recommendations
- A detailed implementation report with cost estimate for further research. This report will contain a full integration of all research findings and available information.

### **3 RESEARCH METHODOLOGY**

The research methodology that was agreed upon comprises the following components:

- Desktop research on the 2020 landscape and drivers of change. This research will be based on credible resources that are available on the University of Pretoria's library
- Assessment of all relevant research reports provided by merSETA.
- Assessment of the current SSP. The SSP is based on DHET requirements and contains a great deal of information required for the successful completion of this research project. Where possible, available SSP related information secured elsewhere will be incorporated in this research report.
- Analysis of SSPs of other sectors. Although content information of other SSPs might not be relevant to merSETA, methodological approaches followed by other SETAs provide valuable insights into skills development solutions. For example,

rural development has certain challenges that are relevant to most industries and valuable lessons can be learned by looking at clues outside the motor industry.

- A detailed policy analysis. Work done for various other SETAs included detailed policy analyses. Certain methodological considerations of these work assignments will be customised for the Motor Chamber of merSETA.

## 4 SOUTH AFRICAN POLICY ANALYSIS

### 4.1 OVERVIEW

No skills development initiative of value can be sensibly planned and implemented without an understanding of the policy landscape of South Africa.

In a rapidly changing industry such as motor sector, global forces have a major impact on the way in which business is done. Through globalisation, factors such as technological developments and competition become more important. Amid the global forces, motor industry in South Africa is also subject to the implementation of the South African policy agenda.

### 4.2 THE NATIONAL POLICY AGENDA VS GLOBAL FORCES

The following contradictions between global forces and the South African policy imperatives have been identified:

**Table 4-1: Global forces vs South African policy imperatives**

<b>Global forces</b>	<b>South African policy imperatives</b>
Reduced employment in various industries as a result of various factors such technological developments	Increased employment levels are required in all industries. The Skills Accord for example, states that 5 million new jobs are required by 2020
Fewer people required due to technological advances to do more work. For example, less administrative are required due to the automation of transactions	Job creation is required. This theme is also actively supported and driven by organised labour
Market forces largely prescribe business practices.	Historic inequalities need to be addressed. The Equity agenda with focus on BBBEE is high on all policy



	agendas
Labour market forces dictate	The empowerment of historically disadvantaged South Africans is mandatory. Organised labour also has a major influence.
Political transformation is not always affecting the sector	Imperative political transformation directly affects the sector, for example Employment Equity.
Legislation focuses largely on industry regulation	Regulation focuses on industry regulation as well as challenging political transformation. For example, increased BBBEE is very high on the agenda of all industries due to government policy.

It is therefore essential that a solution should be customised for South Africa and included as the proposed strategy to address skills development. It is clear that the realities of South Africa and the policy agenda should not be overlooked, especially in terms of high impact interventions that could follow as a result of this research project.

It is clear that international developments in the motor sector have a major impact on the way in which business in South Africa needs to be done. A customised solution based on international trends as well as South African policy is required, with specific focus on skills development strategies.

#### **4.3 THE MEDIUM-TERM STRATEGIC FRAMEWORK'S STRATEGIC PRIORITIES**

The Medium-term Strategic Framework (MTSF) sets the scene for major transformation in South Africa, with specific effects on skills development. Against the forces of the global landscape, it will be very challenging to meet the objectives of the MTSF as set out below. The impact of the strategic priorities on skills development in the motor sector is summarised in Table 4-2:

**Table 4-2: Impact of the MTSF on skills development in the motor sector**

<b>Priority</b>	<b>Impact on skills development</b>
Speed up growth and transform the economy to create decent work and sustainable livelihoods.	This priority will be challenging in the current economic climate, especially after the recession, but it should be pursued in the best interest of all stakeholders. Innovative solutions will be required to position the industry to meet this objective. Growth should be focused on opportunities and challenges identified in the drivers of change and anticipated economic climate.
Implement a massive programme to build economic and social infrastructure.	This priority is also very challenging in the motor sector environment, but should form part of the merSETA skills development plan. Economic and social infrastructure is technically not an integral part of the motor industry's agenda, but it cannot be ignored.
Implement a comprehensive rural development strategy linked to land and agrarian reform and food security.	The motor sector's volume of activity is not really well developed in the rural areas. Existing extensive activity in urban areas need to be extended to rural areas, which will be challenging. However, the industry has no option but to pursue the rural agenda of government.
Strengthen the skills and human resource base.	The primary focus of this research project is aligned to achieving this priority in the motor sector in accordance with the changing landscape anticipated for 2020. This priority is, in fact, the basic responsibility of all SETAs to provide quality initiatives and strategies to guide the skills development process.
Improve the health profile of all South Africans.	Most empowerment efforts should be aligned with focused health initiatives, especially pertaining to pandemics such as HIV/AIDS. The practice by most SETAs to include a compulsory unit standard on HIV/AIDS in qualifications should be continued with.
Intensify the fight against crime and corruption.	The motor industry is sensitive to especially vehicle theft. The industry also operates in an environment where the utmost care should be taken in terms of corruption.
Build cohesive, caring and sustainable communities.	This priority will be very challenging. Technically all industries should also focus on community development through the services they render, for example by securing the cooperation of NGOs.

Pursue African advancement and enhanced international cooperation.	Managing the contradictions between the South African environment and global forces forms an integral focus point of this research project. Initiatives such as the merSETA women's empowerment tender should be increased. .
Manage and use resources sustainably.	Resource optimisation is of critical importance in the industry, especially from a technological application perspective. The motor industry is part of a technologically driven environment and initiatives should optimise resource sustainability.
Build a developmental state, including the improvement of public services and strengthening of democratic institutions.	The successful implementation of the recommendations of this research project should support the realisation of this priority.

#### **4.4 THE NEW GROWTH PATH**

A press release by the Department of Higher Education and training (DHET), dated 13 July 2011, stated the following: "Government coordinated a process of social dialogue on the New Growth Path (NGP), at the National Economic and Development Labour Council (NEDLAC) to promote implementation of the policy framework. This process brings together government departments, organised labour, organised business and community groups to engage on key areas identified in the NGP. All constituencies have committed to the NGP goal of five million new jobs by 2020."

Further job creation in the motor industry is challenging but highly possible if the required skills base is secured.

#### **4.5 THE NATIONAL SKILLS ACCORD**

The National Skills Accord states the following: "Representatives of business, organised labour, the community constituency and government have agreed to partnerships to achieving the New Growth Path of five million new jobs by 2020." The creation of five million new jobs is indeed challenging, especially in the wholesale and retail industry. Global forces result in more work to be done by fewer people, and this is viewed as a real challenge within the realities of a job creation policy.

This research project paves the way to achieve the requirements of the National Skills Accord if recommendations are implemented and regularly monitored.

#### **4.6 NATIONAL SKILLS DEVELOPMENT STRATEGY III**

An understanding of the NSDS Landscape is important to understand the impact of this research report

##### **The Vision of NSDS I was driven by six guiding principles:**

- Lifelong learning – continually upgrading and improving
- The promotion of equity – Opportunities for disadvantaged as well as advantaged
- Demand driven to support and enhance productivity
- Flexible – Employers, both Public and Private as well as the workers are best placed to make judgments about priorities
- Partnership and cooperation between and amongst the social constituencies
- Efficiency and effectiveness in delivery leading to positive outcomes for all those who invest in training and skills development in NSDS I –

The emphasis was placed on equality and the need to cultivate lifelong learning in a workplace environment. Learning should be demand driven based on the needs of employees in both the public and Private sectors. The effectiveness of delivery was essential in order to ensure desired outcomes were achieved.

##### **The vision of NSDS II was driven by five objectives as listed below:**

- Prioritising and communicating critical skills for sustainable growth, development and equity
- Promoting and accelerating quality training for all in the workplace
- Promoting employability and sustainable livelihoods through skills development
- Assisting designated groups, including new entrants to participate in accredited work, integrated learning and work-based programmes to acquire critical skills to enter the labour market and self-employment
- Improving the quality and relevance of provision

The emphasis in NSDS II was placed again on equity, quality training and skills development in the workplace. The need for the promotion of employability was identified. NSDS II also identified the need for assisting designated groups to gain knowledge and experience in a workplace environment in order to gain critical skills. The quality of the provision was identified as a problem area needing improvement.

**The vision of NSDS III is driven by eight objectives listed below:**

- Establishing a credible institutional mechanism for skills planning
- Increasing access to occupationally-directed programmes, both intermediate level as well as higher level professional qualifications
- Promoting the growth of a public FET college system that is responsive to sector, local, regional and national skills needs and priorities
- Addressing the low level of youth and adult language and numeracy skills to enable additional training
- Encouraging better use of workplace-based skills development
- Encouraging and supporting cooperatives, small enterprises, worker-initiated, NGO and community training initiatives
- Increasing public sector capacity for improved service delivery and supporting the building of a developmental state
- Building career and vocational guidance

In NSDS III the emphasis swings in the direction of institutional learning linked to occupationally directed programmes. It promotes the growth of FET Colleges in order to address national skills needs. Better use of workplace skills programmes is encouraged as is the use of worker- initiated training initiatives. Public sector improved service delivery is seen as an imperative. The issue of language and literacy is of concern in terms of enabling additional learning.

Central to the strategy are partnerships between employers, public education institutions, private training providers and SETAs, "to ensure that cross-sectoral and inter-sectoral needs are addressed". Specific targets for each of these goals will be set annually as part of the DHET's annual implementation plans. In his launch statement, the Minister noted that some targets have been incorporated into his performance agreement and that additional targets will be announced as part of his 2011 budget vote speech.

In his statement, Nzimande also noted that in terms of skills development, one size does not fit all; NSDS III therefore provides a stronger base for the SETAs and DHET and "ensures an improved focus on the core mandate of SETAs". There is greater emphasis on relevance, quality and sustainable skills training that will have a positive impact on poverty reduction and the eradication of inequalities. To this end, NSDS III supports "cooperative, NGO, small enterprise, community and worker-initiated skills development and training programmes". As suggested in the 2010 consultative document, 10% of the mandatory grant to employers will be ring-fenced for PIVOTAL

grants, i.e. professional areas of study which combine both higher education and "structured learning" in the workplace.

One of the themes running through the strategy is the need to build the capacity of the public service to improve the quality of service delivery. This includes, among other things, the specialist and pedagogical (teaching) knowledge and skills of the FET colleges. The public FET Colleges are seen as critical to skills development; there is a commitment to a review and improvement of both the National Certificates (Vocational) and the N-courses. The N-Courses were to have been phased out, but are now being retained.

The third version of the National Skills Development Strategy (NSDS III) has changed the focus from top-down to interactive skills planning. The Motor Chamber of merSETA, therefore, follows a more consultative approach to plan future skills as demonstrated in this research project. Inputs from consultative focus group meetings with key stakeholders form the basis for the qualitative research methodology. The strategy towards the end of this report contains clear deliverables and time frames based on the principles of goal-setting and success indicators. Interactive skills planning form an integral part of the recommended solutions.

The NSDSIII objectives outlined above should direct this research project.

#### **4.7 INDUSTRIAL POLICY ACTION PLAN II**

The Industrial Policy Action Plan II (IPAP II) 2010/11–2012/13 was launched in March 2010. Government viewed it as a quantum leap forward in efforts to help build South Africa's industrial base in critical sectors of production and value-added manufacturing and to contribute to the reduction of chronic unemployment. IPAP II is a three-year rolling industrial development road map that is the product of the Economic Cluster (of ministers and departments). Both in terms of the breadth of the interventions outlined and the requirement of intergovernmental coordination and multistakeholder involvement, IPAP II is a first of its kind in South Africa (the dti, 2011). As a major industry, wholesale and retail is fully committed to the opportunities and challenges of IPAP II.

From a skills development perspective in the Motor sector, the following section is very important: "Long term development needs to be underpinned by higher growth in the production sectors, led by manufacturing. This is due to the fact that the economy is not made up of a set of discrete and isolated activities, but rather sectors that are fundamentally interlinked." (dti, 2011)

The drivers of change up to 2020 such as social media and the green agenda therefore become more important from a skills development perspective. The Motor sector receives its goods from sectors that are indeed interlinked.

#### **4.8 THE NEW GROWTH PATH**

The New Growth Path Policy Framework can be summarised as follows:

There is growing consensus that creating decent work, reducing inequality and defeating poverty can only happen through a new growth path founded on a restructuring of the South African economy to improve its performance in terms of labour absorption, as well as the composition and rate of growth. To achieve that step, change in growth and transformation of economic conditions requires hard choices and a shared determination as South Africans to see it through. Government is committed to forging such a consensus and leading the way by doing the following:

1. Identifying areas where employment creation is possible on a large scale as a result of substantial changes in conditions in South Africa and globally.
2. Developing a policy package to facilitate employment creation in these areas, above all through the following:
  - A comprehensive drive to enhance both social equity and competitiveness
  - Systemic changes to mobilize domestic investment around activities that can create sustainable employment
  - Strong social dialogue to focus all stakeholders on encouraging growth in employment creation activities.

The New Growth Path must provide bold, imaginative and effective strategies to create the millions of new jobs South Africa needs. The implications for skills development are clear. New jobs would require a considerable amount of focused people empowerment

#### **4.9 NATIONAL DEVELOPMENT PLAN 2030 VISION FOR THE COUNTRY**

The commission applied their minds to the 9 challenges identified as the most pressing in the diagnostic report. These were:

1. Too few people work
2. The standard of education for most black learners is of poor quality

3. Infrastructure is poorly located, under-maintained and insufficient to foster higher growth
4. Special patterns exclude the poor from the fruits of development
5. The economy is overly and unsustainably resource intensive
6. A widespread diseased burden is compounded by a failing public health system
7. Public services are uneven and often of poor quality
8. Corruption is widespread
9. South Africa remains a divided society

The NPC concluded that there were things that the country needed doing. Comments on implications for the W&R sector are made in bold text:

- Create jobs to grow the economy and make it more labour absorbing economies. **Job creation remains high on the planning agenda. Empowerment of SMMEs could be viewed as priority.**
- Expand infrastructure. **Various Motor industry strategies address the issue of infrastructure.**
- Transition to a low carbon economy. **This driver of change should be very high on the skills planning agenda of the Motor sector.**
- Transform urban and rural spaces. **To be included in the rural strategy of the Motor sector.**
- Improve education and training. **This objective forms an integral part of solutions proposed in this research project.**
- Provide quality healthcare. **Already included in solutions.**

**As far as the final objectives are concerned the Motor sector should consider developing further solutions in the following areas:**

- Build a capable state
- Fight corruption
- Transformation and unity

#### **4.10 GREEN PAPER FOR POST-SCHOOL EDUCATION AND TRAINING**

The following comments by the Council on Higher Education (CHE) is viewed as very relative based on the skills development research done by the Motor sector

“The Green Paper in developing a vision for a single, coherent, differentiated and highly articulated PSET covers a range of issues that are beyond the remit and mandate of the



CHE. In the light of this, the Council's response will be limited to the proposed vision for the PSET and two key policy issues addressed in the Green Paper, namely:

1. The quantity, quality and diversity of provision, with a particular focus on the proposals relating the Further Education and Training (FET) Colleges and the Universities.
2. The streamlining of the regulatory system, specifically, the National Qualifications Framework (NQF) and the role of the Quality Councils (QCs).” (CHE, 2012)

The following viewpoint from the CHE also outlines further positive effects of the Green Paper:

“The skills supply from institutions as outlined in chapter 3 will definitely benefit from the above policy issues addressed in the Green paper. The release of the Green Paper on Post-School Education and Training (PSET) signals a key shift in the evolution and development of the post-apartheid transformation of the education and training system. The integration of the education and training system and its institutional manifestation through the creation of the Department of Higher Education and Training (DHET) provides an opportunity to enhance and strengthen the role of the education and training system in contributing to the development of the knowledge and skills that are essential elements in giving effect to and overcoming the reconstruction and development challenges that face South African society. (CHE, 2012)

If all the policy guidelines are implemented, it is expected that the various issues outlined in the Motor sector will be proactively addressed such as the training of artisans and the acceleration of the development of Historically Disadvantaged South Africans.

#### **4.11 OTHER RELATED POLICIES**

It is clear that the South African policy landscape makes sufficient provision for long-term skills planning to improve the quality of life of people, as well as to improve economic and social development. A document that is also of great significance is the Department of Higher Education's Strategic Plan 2010–2015, which contains the following clear deliverables and objectives based on its long-term vision and the MTSF:

- **Understand skills needs:** An agreement between the public and private sector (receivers and providers) on skills classification and needs are urban-biased and do not consider skills needs for sustainable livelihoods.
- **Communicate skills needs:** The Master Skills List information will be easily accessible to various users, so as to steer the system and guide choices.

- **Raise the base:** Provide second-chance opportunities for those who do not qualify for other forms of post-school learning, in order to “raise the base”.
- **Expand access to education and training for the youth.** The focus on the youth forms a key focus point of most training interventions in most sectors.
- **PIVOTAL:** Increased numbers and the relevance of academic, professional and vocational learning.
- **Workplace:** Increased numbers, as well as improved quality and relevance of workplace learning.
- **Promote employability and sustainable livelihoods through skills development.** The increased focus on employability is viewed as critically important, especially from a training institutional perspective. There is a need to give students practical exposure before they complete their qualifications.
- **Research:** Expand research, development and innovation capacity for economic growth and social development.
- **Improve institutional efficiency.** Improved institutional efficiency will be to the benefit of skills development in all sectors.
- **Optimise both institutional and system shape and capacity.** Achieving this objective will also have a significant positive impact on the delivery of skills.

There is clear alignment between the anticipated outcome of this research project and the Department of Higher Education’s Strategic Plan 2010–2015. In general, concerted efforts were made to fully align this research project with all relevant policies and legislation.

## 5 DRIVERS OF CHANGE TOWARDS 2020

### 5.1 BROAD INTRODUCTION

#### OVERVIEW

Based on extensive research experience with Sectoral Education and Training Authorities (SETAs) it was found that the skills planning period should look beyond the prescribed 5-year planning period. It was therefore decided also to take 2020 as a broad longer term planning horizon for this research project.

Drivers of change are normally classified as industry-specific and non-industry-specific. For example, policy imperatives such as Employment Equity and HIV/AIDS are normally non-industry-specific, since all sectors are implied. The policies set out above can be

viewed as non-industry specific, yet efforts were made to discuss their implications within the context of the motor industry. An analysis that is often used to capture future challenges is the PESTEL analysis referring to the Political, Economic, Social, Technological, Environmental and Legal parameters that have an impact on the future.

All drivers of change will be expressed and summarised as a PESTEL analysis in the proposed strategy.

## **CURRENT AND FUTURE PERSPECTIVE OF THE SOUTH AFRICAN MOTOR INDUSTRY**

As an introduction to this section of the report, the following observation by Dr Johan de Beer, Head of People Development of the Imperial Group is viewed as significant.

“A major shift in the working situation is the further reduction of a paper environment. Banks as they are still to some extent associated with, namely bricks and mortar buildings will disappear. More industries will get involved in the banking industry and render services previously done by banks, such as motor financing.

Software applications will increase, especially from a diagnostic perspective. Traditional motor investigations will increasingly be computerized. More internet applications will have a major impact on the motor industry.

Car manufacturers will focus on making products more like ordinary consumer articles. For example, cars will most likely have a life cycle of around 100 000 Km's since it will become less necessary to overhaul car engines and major components.

The philosophy of car building should be studied. Skills required should be viewed from a proactive rather than reactive perspective.”

### **5.2 2020 ECONOMIC PERSPECTIVE**

It is clear that the economy in 2020 will look substantially different from now. According to Euromonitor International, the top ten economies in 2010 and 2020 can be summarised as follows:

Top 10 largest economies by GDP in PPP terms: 2010 and 2020

Rank	Country - 2010	GDP (U\$ million)	Country - 2020	GDP (U\$ million)
1	USA	14,802,081	China	28,124,970
2	China	9,711,244	USA	22,644,910
3	Japan	4,267,492	India	10,225,943
4	India	3,912,911	Japan	6,196,979
5	Germany	2,861,117	Russia	4,326,987
6	Russia	2,221,755	Germany	3,981,033
7	United Kingdom	2,183,277	Brazil	3,868,813
8	France	2,154,399	United Kingdom	3,360,442
9	Brazil	2,138,888	France	3,214,921
10	Italy	1,767,120	Mexico	2,838,722

Euromonitor International from IMF, International Financial Statistics and World Economic Outlook/UN/national statistics

From a Motor industry perspective, the considerable shift from West to East is important, especially from a market perspective. It is clear that more specific detail on the impact will need to be clarified during qualitative consulting sessions with key stakeholders.

The following perspective of KPMG should be viewed as significant from a South African perspective:

“A gloomy outlook for the future of the motor industry has been predicted by 200 senior executives from the sector in a survey by KPMG. They are expecting more companies to go out of business in the coming years as revenues and profits continue to fall.

Most of those polled highlighted the risk of company insolvencies or bankruptcies, with almost nine out of 10 predicting an increased number of business failures. Mike Steventon, automotive partner at KPMG, said: “The current economic climate is having an unprecedented impact on the automotive industry. The combination of evaporating consumer confidence combined with significant restrictions on available finance, uncertainties over residual values and inherited overcapacity have created the automotive industry’s perfect storm.

“Although there are turbulent times ahead and the level of restructuring globally will be unprecedented, I believe we will look back on 2009 as the year the automotive industry addressed its legacy issues of overcapacity, productivity and inherent duplication.” (KPMG 2009)

### 5.3 INDUSTRY CONVERGENCE

Industry convergence as a result of the convergence of technologies is well documented in various credible sources. To some extent the motor industry is converging with the banking industry, for examples companies such as the Imperial Group renders specific services previously limited to banks and financial institutions. The motor industry is also largely technologically driven, which further increases the impact of industry and technology convergence.

### 5.4 TECHNOLOGY

Rapid changes in technology have an impact on most sectors, and the motor sector in particular.

Regienczuk (2012) describes the following 14 transformations that have an impact on business today and in future that also have an impact on the motor industry. Comments are made **in bold text**:

- “Internet use exploded across the world. The entire motor industry is well-covered on the WorldWide Web. **Buyers of products and service have continuous access to information.**
- Big box retail continued to dominate much of the shopping growth. Big box retail implies retail stores that occupy enormous amounts of physical space and offer a variety of products to its customers. **This trend also has an impact on the motor industry since various large motor outlets are continuously emerging.** Large diverse motor outlets in areas such as Menlyn can be viewed as big box retail outlets.
- Online shopping became viable business. **Various motor related components can be purchased online.**
- Social websites (Facebook, LinkedIn, MySpace) came into being. **All motor retailers of note have Facebook pages with direct links to websites and electronic brochures.** It is clear that the impact of social media be closely monitored and appropriate proactive action be taken. Social media strategies are increasingly incorporated into the corporate strategies of leading companies.
- Thousands of new businesses were born based on the Internet, mobile and other digital platforms. **These small businesses also serve the Motor industry.**
- Targeted digital advertising became mainstream. **Digital advertising in the Motor industry has become common practice.**
- Laptops replaced desktops. **The movement from big to small, especially in terms of technology also has a major impact on the motor industry.**

- Mobile phone use exploded. **Mobile technology also has a major impact on the motor industry, especially in terms of payment, GPS technology, etc.**
- Texting was introduced and embraced. **Texting through media such as Twitter has an effect on all industries.**
- Online privacy concerns have taken a backseat where services, social community and convenience are provided”. **The motor industry should also take note of this development.**

A major study conducted for Skillsmart Retail in the United Kingdom identified the following important skills needs from a retail web perspective:

- “Web analytics tracking how customers interact with the website, which enables web design and email marketing to be optimised to drive customers to make purchases. The potential it offers to target users with relevant and personalised offers mean that web analytics can provide a direct, measurable financial advantage for online retailers using it effectively.
- Social media, including blogs, customer communities, Facebook and Twitter – taking brands from their home websites into the consumer’s wider online social environment.
- ‘M-commerce’, i.e. online retail for web-enabled smartphones, using either a mobile-optimised website or a brand-specific shopping application.” (IFF Research, 2010.)

According to (Banks 2010) the impact of technology on the motor industry can be summarised as follows: “High-tech equipment will become more and more prevalent — for example, in-vehicle telematics which provides drivers with instant safety, security and communications services. Practical applications include voice assisted driving directions, parking, acceleration and vehicle failure detection. Telematics-driven infotainment services include Bluetooth wireless and satellite radio. Future applications will include vehicle-to-vehicle communications to ensure vehicles keep a safe distance from each other to avoid and perhaps eliminate collisions. Automakers will be pressured to develop a global platform upon which vehicles are designed, engineered and produced, to leverage the most capital-intensive equipment and resources initially, and then customize and accessorize later for regional preferences. Perhaps most critically, car manufacturers and suppliers will need to embrace a long-term consumer vision to succeed, in the same way in which Apple has done with its iPod, iPhone and iPad products.”

“Electric vehicles (EVs) could account for more than 10 per cent of cars in Western Europe by 2020. That was one of the forecasts made at the Eurotax Glass’s annual Business Intelligence Forum.

Steffen Schick, managing director Global Services at Eurotax Glass’s, said the future for EVs looked good with battery prices set to fall and projections of a possible 50 per cent cut in cost per kWh by 2020.” Retrieved from the WorldWide Web on 25 September 2012 file:///C:/Users/User/Desktop/SSI/Merseta/Desktop research/Electric cars to reach 10%25 share by 2020 \_ Motor Trader Magazine \_ Motor Industry News - Jobs - Awards.htm

It is clear that the 2020 technological landscape will be very challenging from a skills development perspective in the motor industry.

## **5.5 GROWING MIDDLE CLASS**

Various credible sources identified a growing middle class worldwide. In South Africa, this trend should be exploited from a motor industry wholesale and retail perspective, especially in view of the fact that the “middle class” can be considered the “consumer class” and therefore society’s economic driver. The sector should target the aged, which is a significant client base, since they will be the consumers with the spending money. South Africa is witnessing a rapid rise of a black middle class who was held back by years of apartheid. A growing black middle class has seen increased participation of black people in the economy.

According to Goyal (2010), the growing black middle class is a product of the South African government’s black economic empowerment (BEE) programme that kicked in post-1994 after the end of the apartheid era. They form around 10% of the 22 million over-18-year-old black South Africans and contribute up to 40% of the spending in this group. This segment is growing rapidly. Figures at the end of 2008 show that this group’s numbers were growing at 15%, “We have found them fairly resilient consumers amid recession,” says John Simpson, co-founder and the director of the UCT Unilever Institute of Strategic Marketing. This trend should definitely be viewed as a lucrative opportunity for the wholesale and retail sector.

## **5.6 DECLINING BIRTH RATES AND AGEING POPULATION**

According to *The Voice of America* (2011), the declining birth rates in the world have the following impact:

- The global population has experienced an unprecedented reduction in birth rates over the past few decades.
- People in rich and poor countries alike are having fewer babies, which demographers warn will lead to a worsening problem of global ageing.
- By 2047, more people will be older than 60 than those younger than 60.
- There will be more retired and less economically active people.
- There will be an increased dependency ratio.
- A greater tax burden will be placed on economically active people.
- Changes in demand for labour will occur.

Kinsella and Ferreira (1997, updated in 2010) describe the ageing situation in South Africa as follows: “Concern about population in Africa traditionally has focused on relatively high rates of fertility and mortality, expansion of basic health programmes, and, more recently, on the devastation resulting from the HIV/AIDS pandemic. Overlooked in the face of these pressing issues is the fact that most African populations are ageing, albeit at slower rates than in much of the developing world.” Although the situation is not yet so severe in South Africa, the wholesale and retail industry should closely monitor the global trend. It was found that older customers should be approached in another way, since they have different tastes and preferences.

## **5.7 THE GROWING IMPORTANCE OF THE GREEN AGENDA**

According to Deloitte (2010), the following arguments can be put forward to illustrate the growing importance of the green agenda and ask specific questions that need to be addressed:

- In the last 12 to 18 months, there has been a significant shift from viewing the green agenda as a compliance issue to viewing it as a strategic cost management – and even profit – opportunity. What are the causes and potential implications of this shift?
- There is a consensus that a new kind of partnership between government and the private sector will be needed to advance the green growth agenda. How that partnership is likely to play out in different parts of the world, and what are the expected effects?
- Open innovation will be a key driver of green business and technology. Businesses looking to maintain their competitive edge will need to rethink their basic business structures. What should business leaders be thinking about now to better prepare for the changes in the business landscape?



The green agenda is further characterised by the following:

- The need for increased recycling.
- Packaging challenges. Greater awareness off environmental protection among retailers.
- A massive responsibility to effectively implement the green agenda.
- Solutions to solve the depletion of water resources.

## **5.8 SOCIAL MEDIA**

According to various credible sources, such as Deloitte, Gartner and PWC, social networks will grow in importance as marketing opportunity for retailers. Gartner, the world's leading information technology research and advisory company, created a list of the top ten things retailers should know about social networks and what action to take. The following statements from the document are viewed as points to consider from a South African perspective:

- Analysts believe that the social network market has not yet settled, so companies should be cautious with their investments in any one social network.
- Social networks are rich in word-of-mouth discussions about retailers and their products.
- Retailers should view social networks as a lead-generation channel just as they would search engines, review sites and price comparison sites.
- Word of mouth is effectively amplified by making social graphs usable by friends and business entities on a social network.
- Communication between friends about something as simple as a pricing or promotion mistake on a website can propagate very quickly in social networks. Similarly, a strong criticism of a product or retailer can quickly attract a large critical mass.
- Social networks are a huge source of consumer data that can be used effectively.
- Gartner advises retailers to build their social network presence on content produced by members and create applications that engage members in providing feedback in areas such as product design. The aim is to create a forum or application that will create value for other members while promoting the organisation's brand.
- Social networks are merging into the real-time world – coming to a mobile phone, Facebook can give brands information that advertising agencies can only dream about. Facebook knows where people live, who their friends are, what their interests are, where they go on holiday and which groups they belong to. From

gathering this very transparent information, brands can target customers in a way that the world has never seen before (Gartner 2010).

According to Bockius (2010), the risks of ignoring the impact of social media are as follows:

- Risk to the brand: Since good as well as negative messages are communicated via social media, the brand of the provider could be tarnished by negative comments.
- Compliance risks: Non-compliance with regulations, laws and other policies can be communicated via social media, which imply risks for the provider.
- Competitive risk: The social media compare quality, prices and service, which could lead to competitive risk for the provider.

It is therefore strongly recommended that proactive action be taken in terms of social media from a skills development perspective. Some publications recommend that a social media strategy should be an integral part of the company's corporate strategy.

## **5.9 LEGISLATIVE DRIVERS OF CHANGE**

The following acts are viewed as significant drivers of change:

### **5.9.1 The National Credit Act**

Since the passing of the National Credit Act (NCA) in June 2007, the volume of motor vehicles, homes, furniture and semi-durable goods sold on credit has plummeted for some time. Since last year car sales have dropped by more than 20%, mortgages slowed from 30% to just over 20% and credit-driven furniture and apparel sales are almost flat (*Financial Mail*, July 2009).

The act has tightened lending regulations, ensuring that consumers pass the "affordability test". It has also consolidated different pockets of the credit market into a single regulated entity. The act aims to improve and increase access to credit, offer debt counselling, improve consumer understanding and prevent consumers from reckless lending. This, together with the worldwide credit crunch, dramatically constrained the wholesale and retail sector. W&RSETA should initiate projects to help enterprises understand and implement the NCA.

### **5.9.2 The Consumer Protection Act**

The Consumer Protection Act has major implications for the motor industry. It will affect business in a myriad of ways. Most South African businesses seem to be unaware that the most restrictive of the provisions of the new Consumer Protection Act will soon be coming into effect.

Section 61 of the act requires that a producer, importer, distributor or retailer of goods supplied on or after the “early effective date”, which is one year after the act was signed, namely 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 or defective goods.

The Section 47 of the act states that the practice of overselling will be illegal. Airlines will no longer be able to overbook flights. If a consumer misses a flight because it was overbooked, the airline will be required to refund the consumer’s ticket with interest, and not just hand out vouchers for the missed booking. They will also have to pay consequential damages for any economic loss resulting from the breach of contract. This will also apply to car hire companies and hotels.

The implications are that the retailer could be responsible for errors made by the producer, importer or distributor, and companies will need to do their own quality control. The act introduces a bill of rights, granting consumers wide-ranging powers to cancel contracts within “cooling-off” periods, refuse to purchase “bundled” products or services, cancel fixed-term agreements if not satisfied with their terms and block approaches by direct marketers, among many others. The act will have a significant impact on the way business is conducted in South Africa, especially from a wholesale and retail perspective. Given the requirements faced by businesses and the consequent extent of liability, the industry will have to invest in extensive training, so that its staff members do not fall foul of the law.

### **5.9.3 Black empowerment and affirmative action**

The most important political driver is the changing political landscape in South Africa and the risks attached to it. The retail sector has been identified as one of the least transformed sectors in the economy, which calls for significant empowerment actions and acceleration of skills development. There are political imperatives that would seek to address this imbalance. Black economic and state administrative empowerment has become an important aspect of political terrain and is a major driving force in South African society. This creates numerous perceptions of political risks, such as affirmative

action in the allocation of state tenders and contracts to black small and medium enterprises.

In general, from a political risk point of view, government interference in prescribing the race and gender of staff in private businesses is regarded as a risk, since it interferes with the freedom of management to appoint the most suitable person to a particular post. Attaining targets set by government in businesses detracts from the primary purpose of management, which is to maximise shareholder wealth.

It is imperative that skills development includes measures to address the representivity of black people in senior management positions. Measures must therefore be put in place to equip black people to perform at this level. The W&RSETA needs to incentivise the skills enlargement of black middle and senior management.

#### **5.9.4 SMME development**

Accelerated development of small, medium and micro enterprises (SMMEs) is high on the agenda of all sectors of the economy. The motor industry needs to carefully consider an acceleration of the SMME sector.

#### **5.9.5 Social drivers of change**

The major social drivers are unemployment and the requirement to create decent work, as well as HIV/ AIDS and crime. An important driver that relates to South Africa's skewed income distribution is the unemployed and the number of people surviving below the poverty line. An unemployment rate above 20% is deemed to pose excessive political risk for most economies, but especially for South Africa, where the populace have been conditioned into believing that things would get better with a new government. The African ethnic group is also the group that bears the burden of this income inequality.

Government has placed the creation of decent work at the centre of economic and social policies. Its actualisation depends on the restructuring of the economy. Part of the problem is that South Africa possesses a top-heavy education system that places a lot of capital on theoretical learning at the expense of skills acquisition and experiential training. In other words, our education system needs to be reoriented from formal degree qualifications to more practical skills and vocational training.

## **5.9.6 PERSPECTIVE ON THE FUTURE OF THE MOTOR INDUSTRY IN SOUTH AFRICA**

Rapid growth as South African automotive component industry becomes global player

Source: <http://www.mbendi.com/indy/motr/mvcm/af/sa/p0005.htm#5>

South Africa's automotive component manufacturing industry is renowned internationally for its technological sophistication, expertise, and flexibility. It is building on a long tradition of being able to manufacture a wide range of products quickly and economically in small volumes by adding new capabilities in meeting high global quality and supply reliability standards for large volumes.

In 2002 the component industry headed for new record export levels and - stimulated by the Motor Industry Development Programme - continued with the rationalisation of production and continuing capital investment to align it with international requirements.

Although the industry may not return to year 2000 levels of profitability until 2003 or 2004, and OEMs are continually squeezing supplier margins, the extension of the MIDP to 2012 is providing an improved basis for longer-term strategic planning and growth. Component makers are moving to take advantage of developing export opportunities such as the US African Growth & Opportunity Act (AGOA) which is opening up the American market to their products.

At present Germany is the main export market, reflecting how South African component makers have become involved with the global sourcing of DaimlerChrysler (Mercedes-Benz), BMW and Volkswagen who assemble cars in South Africa for export to Europe and other overseas markets. Now new opportunities are opening up for component makers as a result of Toyota's decision to source Corolla and light commercial vehicles from South Africa, and the expansion of Ford's engine export programme.

The supply of the new Corolla and other Japanese product to export markets is bringing South African component makers into Toyota's global sourcing network.

Under the MIDP export complementation scheme, component exports qualify for Import Rebate Credit Certificates (IRCCs) which can be used to offset customs duty on automotive imports. Many component makers have arrangements for these credits with the local assembly plants that they supply. Exporters unable to use the IRCCs in this way can sell these negotiable instruments to an importer.

A trend which increased during 2002 is how OEMs prefer to do business with component makers who are subsidiaries of – or have strong ties with – major

international suppliers. Consequently, independent South African companies are forming links with the leading foreign players and there continues to be pressure on those component makers who are finding it difficult to compete for a dwindling variety of domestically assembled models and for the new export opportunities being created.

Those suppliers who cannot become part of the OEMs' global sourcing networks suffer in many respects in addition to lost orders. Particular problems facing them include the danger of being overtaken by advances in component technology and specifications and the lack of the support to comply with OEM just-in-time delivery requirements.

Strong international affiliations are important also to participate in e-business, which is impacting on the entire order fulfilment process. Many South African companies do not have the resources to participate in on-line bidding through such procurement portals as Covisint, although this competitive disadvantage should be reduced soon with the introduction of a co-operative e-commerce facility for the local motor industry.

Virtually all the major component makers belong to the National Association of Automotive Component and Allied Manufacturers (NAACAM), South Africa's largest automotive manufacturing organisation with some 200 corporate members. NAACAM has exerted a major influence on the MIDP strategy in the interests of its members and was honoured in the first awards for outstanding industrial leadership and achievement by the Global Competitiveness Centre (GCC) at Stellenbosch University.

NAACAM's Executive Director Clive Williams was recognised by the GCC for the efforts he and his team have made to inform and motivate South Africa's automotive component industry to break into new international markets and achieve record levels of exports.

The GCC says that the automotive component industry's performance over the past five years has been one of the great success stories in the history of South African industrial manufacturing, with Executive Director Williams making a significant contribution to its growth and adaptation to new technologies and global quality standards.

NAACAM provides a dynamic forum for the exchange of ideas, and also generates large numbers of networking and business promotion opportunities for members.

In the past, there was little active collaboration between NAACAM and NAAMSA (the vehicle assemblers' organisation), NUMSA (the main motor industry union), the RMI (the federation for retail motor industry activities) and the government's Department of Trade & Industry. Now there is considerable effort devoted to working together to

develop strategies for the industry from which all will benefit. The NAACAM-NAAMSA Strategic Task Group is a notable example of this.

Another example of closer co-ordination has been the introduction under the revised MIDP of the Productive Asset Allowance (PDA). This is designed to encourage investment by the OEMs and component industry aimed at furthering rationalisation. There has also been a phasing out of the MIDP's Small Vehicle Incentive (SVI) which NAACAM believed artificially supported new entrants at the lower end of the market.

NAACAM has campaigned for a broader base of components exported in significant volumes instead of the seven component types which until recently made up over two-thirds of South African automotive exports by value. The two main export groups continue to be catalytic converters and seat parts and leather covers, representing the beneficiation of South African platinum group metals and the regional availability of quality leathers. The drivers of many premium cars around the world now sit on South African leather seats while their engine exhaust emissions are cleaned up by South African produced catalytic converters!

The success of the BMW, VW and Mercedes-Benz CBU vehicle export programmes has resulted in a marked increase in the number of German component manufacturers in South Africa as the parent companies encourage their global suppliers to support their South African assembly plants.

The local suppliers who focused in the past on the South African assembly plants for Japanese vehicles have generally found it more difficult to internationalise their activities. This situation has started to improve, with Toyota's Durban plant passing into Japanese control during 2002 and being developed as a global source for CBU Corollas and light commercial and multi-purpose vehicle exports. Starting in 2004, South Africa will join Argentina and ASEAN countries as part of the global Toyota production network for pick-up trucks, multi-purpose vehicles and major vehicle components being supplied to countries in Europe, Africa, South-East Asia, Latin America and other regions.

The Nissan plant near Pretoria is also developing export business from which its suppliers should benefit.

### **Reduced local content trend**

There has been steadily reducing local content in vehicles assembled locally for sale within Southern Africa. The OEMs are tending to substitute components they have traditionally sourced from South African suppliers as soon as it becomes more cost-

efficient or convenient to have them added into CKD packs, with offset export credits stimulating this process. This trend will be further aggravated if South African materials suppliers – notably of metals for component manufacture – are not competitive in pricing, quality and in meeting the increasing OEM demand for lightweight materials such as the new steels and aluminium alloys.

At the same time, South African OEMs are building a larger proportion of higher specification and more technologically sophisticated vehicles, with each new model introduction creating new challenges for local content suppliers.

The fall in value of the Rand during 2002 has helped the export competitiveness of South African component makers, but is a mixed blessing for the many dependent on importing materials and sub-components. Managing currency risk has become vital.

The HIV/Aids issue and the vulnerability of their trained workers is another critical concern for component makers, as they seek to control payroll costs and meet higher international quality and continuity of supply requirements from OEMs.

Suppliers of direct and indirect raw materials as well as finished components are having to prepare to meet environmental standards such as ISO 14001. A significant industry milestone reached in 2002 was Toyota South Africa qualifying for ISO TS16949 as the OEM pressurize their suppliers to deliver zero defects and products that meet the toughest recycling and environmental requirements around the world.

### **5.9.7 ASSUMPTIONS AND SOLUTIONS TO GUIDE A WIN-WIN SOLUTION**

From the above paragraphs outlining the emerging big picture, a number of key assumptions were made. Furthermore, the impact on skills development was clearly defined and solutions were proposed as a basis for the remaining chapters. Well-researched narrative text is used as a basis to make well-informed assumptions about the changing environment. Please note that the essence of the future analysis will be expressed in a summarised PESTEL analysis in chapter 5 to guide the skills development strategy. The drivers of change from a global, as well as South African, perspective were interpreted and the assumptions, impact on skills development and possible solutions can be summarised as follows:



**Table 2-4: Assumptions, their impact on skills development and possible solutions**

**1. Political**

<b>Assumption</b>	<b>Impact on skills development</b>	<b>Possible solutions</b>
All post-democratic transformation policies will be implemented, which will be challenging.	More emphasis should be placed on the training and development of historically disadvantaged South Africans.	Increase the number of new recruits and competent existing staff members and accelerate the empowerment of historically disadvantaged South Africans in the wholesale and retail sector.
The contradictions between the South African policy environment and the global landscape will become increasingly challenging.	Both environments are exceptionally challenging from a people empowerment perspective. New solutions that meet the challenges of the global pressures and the South African policy imperatives are required.	Secure more labour support for the challenges, and act accordingly. It is essential that a “what-works-best-for South Africa” solution be created to reconcile opposing demands.

**2. Technology**

<b>Assumption</b>	<b>Impact on skills development</b>	<b>Possible solutions</b>
Technological innovation will become increasingly important in MOTOR industry to ensure effective service delivery.	Skills development should focus on creative ICT solutions that extend beyond current needs.	Empower more people with regard to computer literacy. Stimulate innovation in the industry.

Global forces could result in reduced jobs in the industry due to technological innovations.	People will have to be multi-skilled. However, reduced job creation is completely against South African policy and innovative solutions will be required.	Create a truly South African solution by complying with both landscapes through collaboration with the key stakeholders.
The mobile phone will play a much greater role in the financial and retail industries.	Different skills will be required, especially from a technological perspective.	Translate the impact of the mobile telephone into skills required and update existing learning material, where required.
Internet access will improve in rural areas.	More people in rural areas will need to be empowered.	Introduce more client-focused training programmes in rural areas.
Technological advances will continue throughout and most probably increase during the planning period.	Related staff and especially decision-makers will require new skills.	All learning material needs to be adapted where required.
Changes to jobs will be unavoidable during the period up to 2020. For example, certain jobs will require green (environmental), social media and specialised technology components.	New sets of skills that will differ from the status quo will be required. People will in general be required to do more work that was not part of their past or present jobs.	The creation of a future awareness is required, especially at decision-maker level. A multi-skilling approach is required to cater for new critical skills that will emerge as a result of the drivers of change.

### 3. The client

<b>Assumption</b>	<b>Impact on skills development</b>	<b>Possible solutions</b>
Clients will become more demanding in terms of quality and service.	More customer skills will be required at most levels in the sector.	Update existing learning material and accelerate training delivery.
More mobile-orientated clients will be required to realise growth objectives.	More clients need to be empowered on the usage of mobile technology.	Appropriate programmes should be introduced.
Client relationships will	All staff will require more	Conduct skills audits,

increase in importance as competitive advantage does.	focused customer relations skills.	special programmes and individual development programmes
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#### 4. Economic

<b>Assumption</b>	<b>Impact on skills development</b>	<b>Possible solutions</b>
Fluctuations in economic cycles will have an impact on the industry.	Pressure to further reduce staff structures could be placed on the sector.	Empower decision-makers on the impact of the longer-term external landscape in which the wholesale and retail sector operates.

#### 5. New venture creation

<b>Assumption</b>	<b>Impact on skills development</b>	<b>Possible solutions</b>
All sectors of the economy will have to accelerate the creation of new ventures to sustain economic growth and meet political objectives.	People, especially formerly disadvantaged South Africans, need to be empowered with regard to entrepreneurial skills.	Introduce an accelerated new venture creation programme for the motor industry. Implement programmes to grow small businesses into medium and large businesses.

#### 6. Gender imperatives

<b>Assumption</b>	<b>Impact on skills development</b>	<b>Possible solutions</b>
Emphasis will remain high on gender equality.	More focus should be placed on gender equality.	Will be determined in collaboration with stakeholders.

Company employment equity plans will have to comply with charters and will have a significant impact on company compliance challenges.	More focus should be placed on the training and development of women, disabled people and other groups that were discriminated against.	Since current figures for groups like the disabled are not yet sufficient, more focus should be placed on recruiting affected people.
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## 7. Empowerment of historically disadvantaged individuals (HDI)

Assumption	Impact on skills development	Possible solutions
HDI empowerment will have to accelerate during the SSP planning period and beyond.	People without the required skills due to historically driven realities should be empowered.	Introduce a new HDI empowerment strategy based on current and future skills requirements. Set specific targets for middle and top management positions. Consider individual programmes for people with managerial abilities.
Large numbers of people are qualified for jobs but do not have qualifications.	The need for recognition of prior learning (RPL) will increase.	Identify RPL needs throughout the wholesale and retail sector.

## 8. Social imperatives

Assumption	Impact on skills development	Possible solutions
The need to address social inequalities will remain high.	More focus will need to be placed on the non-sector empowerment issues.	Identify and implement programmes aimed at addressing social needs.
HIV/AIDS will remain high in all sectors of the economy.	Productivity will be threatened throughout the planning period.	HIV/AIDS training should be an integral part of all training offerings.

Social media will become increasingly important in the wholesale and retail industry.	More people who can optimise the usage of social media technology will be required.	Include social media in all relevant future training curricula. Include social media strategies in strategic plans.
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## 9. Future mindset

Assumption	Impact on skills development	Possible solutions
The wholesale and retail industry will need to continue to innovate to be competitive.	Decision-makers need to have a future orientated mindset.	Introduce programmes to orientate decision-makers on the impact of the convergence of technologies and industries.

## 10. SMMEs

Assumption	Impact on skills development	Possible solutions
The pressure to create new ventures will pose various challenges to the wholesale and retail sector, especially in rural areas.	Existing training and development actions focusing on SMMEs should be increased and the focus should be placed on limitations identified during research.	Customise existing learning material for the wholesale and retail environment and challenges. Develop an SMME toolkit and make it available to all existing and prospective SMMEs.

It is clear that much more focus should be placed on the training and development needs of smaller players (SMMEs) in the wholesale and retail sector. Although some attended the provincial focus groups, further consultation is required and will be done on an on-going basis.

### 5.9.8 CONCLUSION

A big picture has been drawn to inform the remaining sections of this research report. It is clear that the motor industry faces various challenges over the longer term up to 2020. New drivers of change have been added to add value to future skills development

solutions. The impact of these drivers of change is enormous and new skills need to be defined and actions implemented to develop them.

## 6. SCARCE AND CRITICAL SKILLS

The table below summarizes the scarce skills identified by the merSETA in the current SSP:

**Table 2: Scarce Skills Identified by merSETA for 2011**

OFO Code	Major Category	Occupation	Description	Demand	Share of Total (%)
321201	Technicians and Trade Workers	Automotive Motor Mechanic (Skill Level 3)	Motor Mechanic General	4500	33
321203	Technicians and Trade Workers	Motorcycle (and Scooter) Mechanic (Skill Level 3)	Motorcycle Mechanic	2000	155
324101	Technicians and Trade Workers	Panel beater (Skill Level 3)	Panel beater	1895	14
132101	Managers	Corporate Services Manager (Skill Level 5)	Corporate Service Manager (Service Station Owner)	960	7
324301	Technicians and Trade Workers	Automotive Spraypainter (Skill Level 3)	Automotive Spray painter	877	6
321202	Technicians and Trade Workers	Diesel Motor Vehicle Mechanic (Skill Level 3)	Diesel Mechanic	750	6
233501	Professionals	Industrial Engineer (Skill Level 5)	Component Manufacturing	580	4
324201	Technicians and Trade Workers	Vehicle Body Builder (Skill Level 3)	Vehicle Body Builder	377	3

321101	Technicians and Trade Workers	Automotive Electrician (Skill Level 3)	Automotive Electrician	300	2
323204	Technicians and Trade Workers	Automotive Machinist (Skill level3)	Automotive Machinist	250	2
322303	Technicians and Trade Workers	Welder / Welder (First Class) (Skill Level 3)	Welder/Welder first Class	200	1
551102	Clerical and Administrative Workers	Cost Clerk (Skill Level 2)	Costing Clerk (Warranty, costing, administrative, estimation and assessor key staff)	200	1
223301	Professionals	Training and Development Professional (Skill Level 5)	Training and Development Professional	100	1
224703	Professionals	Skills Development Facilitator / Practitioner (Skill Level 5)	Skills Development Facilitator	100	1
233502	Professionals	Mechanical Engineer (Skill Level 5)	Mechanical Engineers	100	1
233504	Professionals	Industrial Engineering Technologist (Skill Level 5)	Industrial Engineering Technician	100	1
312502	Technicians and Trade Workers	Mechanical Engineering Technician (Skill Level 4)	Metrologist	100	1
552201	Clerical and Administrative Workers	Credit or Loans Officer (Skill Level 2)	Finance and Insurance Clerk	100	1
323402	Technicians and	Toolmaker (Skill	Toolmaker	20	0

	Trade Workers	Level 3)			
223103	Professionals	Workplace/Industrial Relations Officer	Trade Union Official/Shop Steward	50	0.5

As can be seen from the above table, the Technicians and Trade Workers make out the biggest part, at 83%. From the desktop research conducted it also seems that FET institutions are not addressing the skills shortages to the extent needed. It would take intervention from governing bodies (i.e. SETA) to rectify this situation.

Scarce skills will also be discussed at length during the consultative focus groups with key stakeholders.

## 7. FUTURE SKILLS REQUIREMENTS

The future scarce and especially the critical skills will most like look different from those identified above. It could almost be said that the drivers of change are already critical skills. The critical skills of the future would look something like this:

Critical Skill	Application
Social Media and Mobile Technology	Using social media to increase profitability and reach a bigger market; Social media used to create brand awareness; Social media used as knowledge exchange platform; etc. Building and launching effective social media, branding and marketing campaigns; etc.
Green Agenda	Using tax rebates as marketing advantage; Employing techniques to adhere to green initiatives; Understanding the impact of work on the environment and repercussions thereof; etc.
E-Learning	Employing e-learning strategies in the workplace; Using e-learning to connect globally; Using e-learning to close the skills gap



	<p>within your company;  Utilise e-learning to generate and manage a growth path for an employee;  etc.</p>
Innovation and Technological Changes	<p>Incorporating technology and innovation into the workplace;  How to keep abreast with innovation and technological changes;  Using various technologies to stay ahead of a highly competitive market;  Utilising technology to gain competitive edge; etc.</p>

merSETA Qualifications Motor Chamber				
Qualification/Unit Standard	Topic Title	US ID	NQF Level	Qualification Provider (see below)
<b>Cross-Cutting Generics</b>				
Safety and quality induction	Safety in the workplace	13220; 9443; 9839; 13167; 9964 (core) 13222; 14683 (elective)	2	
Safety and quality induction	Monitoring quality	13164; 119139 (core)	2	
Safety and quality induction	Fire Fighting	110075; 252250;12484	2	
Safety and quality induction	First aid	12483; 119567; 116534 ;120496	2	
Safety and quality induction	Safety and environmental impact	259604	2	
Drawing and measuring	Engineering drawing	9882; 12215; 243075 (core)	2	
Drawing and measuring	Measuring and marking off	12476; 9881; 244342 (core)	2	
Drawing and measuring	Mark off made easy	335897; 13238	2	
Drawing and measuring	Engineering drawings and sketches made easy	335860	2	
Life Skills	Introduction to the world of work	13172; 12036; 246449; 12456; 12466 (core)	2	

Life Skills	Working and communicating with others	9322 (core) 13217; 9324 (elective)	2	
Life Skills	Personal and business finance	10718; 119913 (core) 9268; 14444 (elective)	2	
Life Skills	HIV and Aids in the workplace	13169; 13915; 259762; 12463	2	
Life Skills	Manage personal finance	243189	2	
Working with materials and tools	Introduction to materials	13165	2	
Working with materials and tools	Introduction to hand and measuring tools and tasks	13159	2	
Working with materials and tools	Engineering materials	12477 (core)	2	
Working with materials and tools	Using tools	13163; 119744; 12216; 12219 (core) 9879 (elective)	2	
Working with materials and tools	Maintain stock levels	265001	2	
Learning tools and techniques	Learning and studying techniques	12465; 13202 (elective)	2	

Learning tools and techniques	Use of computers in the workplace	116932; 117867; 117902; 117924; 9532; 116937 (elective)	2	
Workplace fundamentals	Safety in the workplace	13223; 12455 (core)	3	
Workplace fundamentals	World of work	123258; 242814 (core)	3	
Workplace fundamentals	Quality management	13234 (core)	3	
Workplace fundamentals	Working off site	253880	3	
Engineering and manufacturing technology	Engineering materials	13274 (core)	3	
Engineering and manufacturing technology	Engineering drawings	9885 (core)	3	
Engineering and manufacturing technology	Engineering drawings and sketches	13301; 335854	3	
Life skills	Team dynamics	120379; 116714 (elective)	3	
Life skills	Deal with dynamic and diverse work environment	9533; 116720 (elective)	3	

Life skills	Personal management skills	9530 (core) 12429 (elective)	3	
Learning tools and techniques	Use of computers in the workplace	116940; 119078 (elective)	3	
Learning tools and techniques	Learning techniques	12457; 117877 (elective)	3	
Learning tools and techniques	Collect and record data	14051	3	
Learning tools and techniques	Problem solving and decision-making	244611	3	
Learning tools and techniques	Power point	116930	3	
Workplace fundamentals	Safety in the workplace	13224; 123369; 120344 (core) 120366 (elective)	4	
Workplace fundamentals	Manage quality	14586; 243025 (core) 13235; 7117; 13194 (elective)	4	
Workplace fundamentals	Understanding business processes	13952; (core) 242655 (elective)	4	
Workplace fundamentals	The budget function	13941	4	
Workplace	The basic financial	117156	4	

fundamentals	statements			
Project management	Project management	120372; 120373 (core) 120382; 120387; 120375; 120385; 120374; 120377 (elective)	4	
Training, assessment and learning	Training and learning techniques in the workplace	7876; 7818 (elective)	4	
Training, assessment and learning	Assessment in the workplace	115753 (elective)	4	
Working with people	Supervision and leadership in the workplace	116380; 10981 (core) 12030 (elective)	4	
Working with people	Team dynamics	242812; 242820; 15224; 11473; 13912 (elective)	4	
Communications and personal management	Meetings	13914; 242816 (elective)	4	
Communications and personal management	Writing and managing reports	119257; 12488 (core)	4	

Communications and personal management	Personal management skills	114946; 244589 (core) 114589; 14609; 6995 (elective)	4	
Communications and personal management	HIV and AIDS counselling in the workplace	13203	4	
<b>Qualifications</b>				
<b>National Certificate: Air-conditioning, Refrigeration and Ventilation</b>		<b>65449</b>	<b>2</b>	1. Air Conditioning Refrigeration Academy T/A ACRA (Edenvale) (TP) 2. Lazair Training Centre (Pty) Ltd (MOUNT EDGECOMBE) (TP) 3. MCD Training Centre (Pty) Ltd (VEREENIGING) (TP) 4. PADDYS REFRIGERATION & AIRCONDITIONING TRAINING CENTRE (Congella)(TP) 5. Service Corps T/A Works Training School (ELANDSFONTEIN) (TP) 6. Spurami (Pty) Ltd T/A NETA (PORT ELIZABETH) (TP) 7. Tekmation (Pty) Ltd T/A Tekmation Training Institute (DURBAN) (TP) 8. Winters Business Enterprise T/A Winters Tradesman Technical Tuition (P
<b>Module Title</b>	<b>Topic Title</b>	<b>US ID</b>	<b>NQF Level</b>	
Principles of air conditioning,	Thermodynamics	116236 (core)	2	
	Vapour	262177 (core)	2	

refrigeration and ventilation	compression			
	Trade tools	116335 (core)	2	
	Arc welding	116245 (elective)	2	
Identification and safe handling of refrigerants	Refrigerants and their uses	116334 (core)	2	
	Handle refrigerants	116355 (core)	2	
	Maintain refrigerant safety tools	116700 (core)	2	
Electrical principles relating to ARV systems	Electrical principles	116232 (core)	2	
Identify and install piping for ARV systems	Identify materials	116230 (core)	2	
	Install piping	116229 (core)	2	
	Fixing methods	116234 (elective)	2	
Identify mechanical components and perform cleaning activities related to ARV systems	Identify mechanical components	116233 (elective)	2	
	Cleaning	116238 (elective)	2	
Electrical practice ARV systems	Sketch and construct electrical circuits	116244 (elective)	3	
	Install, connect and maintain electrical cables	116243 (elective)	3	



Self-contained, externally powered transport and eutectic refrigeration systems	Install self-contained and externally powered transport refrigeration systems	9266; 9546; 116716 (elective)	3	
Marine refrigerated containers	Inspect and maintain marine refrigerated containers	261802; 262161; 262158 (elective)	3	
Safe handling of ammonia refrigerant	Safe handling of ammonia refrigerant	116704 (elective)	3	
<b>Cross-Cutting Generic Modules</b>				
Safety and quality induction	Safety in the workplace	116241; 9443 (core) 116246; 13222; 14683 (elective)	2	
Life skills	Working and communicating with others	9322 (core)	2	
Working with materials and tools	Using tools	116239; 119744; 12216; 12219 (core)	2	
Learning tools and techniques	Learning and studying techniques	13202 (elective)	2	
Workplace	Safety in the	116223;	4	

fundamentals	workplace	120344 (core)		
Communications and personal management	Personal management	244564; 244589 (elective)	4	
<b>National Certificate: Air-Conditioning, Refrigeration and Ventilation</b>		<b>65489</b>	<b>3</b>	<ol style="list-style-type: none"> <li>1. Air Conditioning Refrigeration Academy T/A ACRA (Edenvale) (TP)</li> <li>2. Lazair Training Centre (Pty) Ltd (MOUNT EDGECOMBE) (TP)</li> <li>3. MCD Training Centre (Pty) Ltd (VEREENIGING) (TP)</li> <li>4. PADDYS REFRIGERATION &amp; AIRCONDITIONING TRAINING CENTRE (Congella)(TP)</li> <li>5. Service Corps T/A Works Training School (ELANDSFONTEIN) (TP)</li> <li>6. Spurami (Pty) Ltd T/A NETA (PORT ELIZABETH) (TP)</li> <li>7. Tekmation (Pty) Ltd T/A Tekmation Training Institute (DURBAN) (TP)</li> </ol>
<b>Further Education and Training Certificate: Air-conditioning, Refrigeration and Ventilation</b>		<b>65509</b>	<b>4</b>	<ol style="list-style-type: none"> <li>1. Air Conditioning Refrigeration Academy T/A ACRA (Edenvale) (TP)</li> <li>2. Lazair Training Centre (Pty) Ltd (MOUNT EDGECOMBE) (TP)</li> <li>3. MCD Training Centre (Pty) Ltd (VEREENIGING) (TP)</li> <li>4. PADDYS REFRIGERATION &amp; AIRCONDITIONING TRAINING CENTRE (Congella)(TP)</li> <li>5. Spurami (Pty) Ltd T/A NETA (PORT</li> </ol>

			ELIZABETH) (TP) 6. Tekmation (Pty) Ltd T/A Tekmation Training Institute (DURBAN) (TP)
<b>National Certificate: Autotronics</b>	<b>78944</b>	<b>2</b>	1. BMW SA (Pty) Ltd (ROSSLYN) (TP) 2. Dawsons Training Academy (Pty) Ltd (DURBAN) (TP) 3. Imperial Technical Training Academy (GERMISTON) (TP) 4. Imperial Technical Training Academy (WADEVILLE) (TP) 5. McCarthy Academy Cape Town (BLACKHEATH) (TP) 6. McCarthy Automotive Artisan Academy (MIDRAND) (TP) 7. McCarthy Automotive Artisans Academy (PINETOWN) (TP) 8. Service Corps T/A Works Training School (ELANDSFONTEIN) (TP) 9. The Automobile Association of South Africa T/A AA Training Academy (MO) 10. The Automobile Association South Africa T/A AA Training Academy (MIDRA) 11. Volkswagen of South Africa (Pty) Ltd - Technical Learning Academy (UIT)

Module Title	Topic Title	US ID	NQF Level	
<b>Autotronics-Specific Modules</b>				
Fundamentals of Auto electricity	Theory Principles of Auto Electricity	376600; 376621; 376641	2	
Automobile batteries and battery system components	Batteries	376600	2	
Auto electrical circuits	Auto electrical circuits	376621	2	
Auxiliary Harnesses	Auxiliary Harnesses	376641	2	
<b>Autotronics-related Modules</b>				
The fundamentals of engine technology	Engines components and basic auto electrics	244056	2	
Use Lifting Equipment	Use Lifting Equipment	15123	2	
Remove and Install automobile components	Remove fit components	260717	2	
Cutting and welding	Oxy- fuel cutting and welding	119753	3	
Basic electricity and electronics	Troubleshoot and repair circuits and starting, charging and ignition	260637	3	

	systems			
<b>Cross-cutting Generic Modules</b>			2	
Safety and quality induction	Safety in the workplace	115101	2	
Safety and quality induction	Monitoring quality	9322	2	
Safety and quality induction	Fire Fighting	252250	2	
Safety and quality induction	First Aid	119567	2	
Safety and quality induction	Safety and environmental impact	259604	2	
Drawing and measuring	Engineering drawings and sketches made easy	335860	2	
Life skills	Personal and business finance	9268	2	
Life skills	HIV and Aids in the workplace	259762	2	
Working with materials and tools	Using tools	119744; 12219	2	
Learning tools and techniques	Use of computers in the workplace	116101	2	

<p><b>National Certificate: Autotronics</b></p>	<p><b>78923</b></p>	<p><b>3</b></p>	<ol style="list-style-type: none"> <li>1. BMW SA (Pty) Ltd (ROSSLYN) (TP)</li> <li>2. Dawsons Training Academy (Pty) Ltd (DURBAN) (TP)</li> <li>3. Imperial Technical Training Academy (GERMISTON) (TP)</li> <li>4. Imperial Technical Training Academy (WADEVILLE) (TP)</li> <li>5. McCarthy Academy Cape Town (BLACKHEATH) (TP)</li> <li>6. McCarthy Automotive Artisan Academy (MIDRAND) (TP)</li> <li>7. McCarthy Automotive Artisans Academy (PINETOWN) (TP)</li> <li>8. The Automobile Association of South Africa T/A AA Training Academy (MO)</li> <li>9. The Automobile Association South Africa T/A AA Training Academy (MIDRA)</li> <li>10. Volkswagen of South Africa (Pty) Ltd - Technical Learning Academy (UIT)</li> </ol>
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<p><b>Further Education and Training Certificate: Autotronics</b></p>	<p><b>78883</b></p>	<p><b>4</b></p>	<ol style="list-style-type: none"> <li>1. BMW SA (Pty) Ltd (ROSSLYN) (TP)</li> <li>2. Dawsons Training Academy (Pty) Ltd (DURBAN) (TP)</li> <li>3. Imperial Technical Training Academy (GERMISTON) (TP)</li> <li>4. Imperial Technical Training Academy (WADEVILLE) (TP)</li> <li>5. Inncor Training &amp; Development (Pty) Ltd (VEREENIGING) (TP)</li> <li>6. McCarthy Academy Cape Town (BLACKHEATH) (TP)</li> <li>7. McCarthy Automotive Artisan Academy (MIDRAND) (TP)</li> <li>8. McCarthy Automotive Artisans Academy (PINETOWN) (TP)</li> <li>9. The Automobile Association of South Africa T/A AA Training Academy (MO)</li> <li>10. The Automobile Association South Africa T/A AA Training Academy (MIDRA)</li> <li>11. Volkswagen of South Africa (Pty) Ltd - Technical Learning Academy (UIT)</li> </ol>
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<b>Further Education and Training Certificate: Autotronics (modules in Autotronics NQF Level 4)</b>		<b>78883</b>	<b>5</b>	<ol style="list-style-type: none"> <li>1. BMW SA (Pty) Ltd (ROSSLYN) (TP)</li> <li>2. Dawsons Training Academy (Pty) Ltd (DURBAN) (TP)</li> <li>3. Imperial Technical Training Academy (GERMISTON) (TP)</li> <li>4. Imperial Technical Training Academy (WADEVILLE) (TP)</li> <li>5. Inncor Training &amp; Development (Pty) Ltd (VEREENIGING) (TP)</li> <li>6. McCarthy Academy Cape Town (BLACKHEATH) (TP)</li> <li>7. McCarthy Automotive Artisan Academy (MIDRAND) (TP)</li> <li>8. McCarthy Automotive Artisans Academy (PINETOWN) (TP)</li> <li>9. The Automobile Association of South Africa T/A AA Training Academy (MO)</li> <li>10. The Automobile Association South Africa T/A AA Training Academy (MIDRA)</li> <li>11. Volkswagen of South Africa (Pty) Ltd - Technical Learning Academy (UIT)</li> </ol>
<b>National Certificate: Electro-mechanics</b>		<b>58269</b>	<b>2</b>	<ol style="list-style-type: none"> <li>1. Blue Horison Properties 53 (Pty) Ltd T/A Durnacol Skills Innovation Hu</li> <li>2. Inncor Training &amp; Development (Pty) Ltd (VEREENIGING) (TP)</li> </ol>
<b>Module Title</b>	<b>Topic Title</b>	<b>US ID</b>	<b>NQF Level</b>	
Basic Hand tools	Select Use and care for engineering tools	12476; 119744; 12219; 243783	2	



	and measuring equipment			
Basic Hand tools	Basic Engineering	13297; 9881; 10784; 13214; 243782	2	
Basic Hand tools	Welding, brazing and cutting	114669; 114616; 113863	2	
Fundamentals of Electricity	Electricity Fundamentals	113877; 10237; 10254	2	
Fundamentals of Electricity	Electricity Application	10233; 10624; 10626; 10253; 10254; 10603; 113858; 10261; 14134	2	
Fundamentals of Electricity	Basic Circuitry	11954	2	
Fundamentals of Electricity	Electrical testing and inspections	110404	2	
Lubrications, bearings and seals	Lubrication	243769	2	
Lubrications, bearings and seals	Bearings	243769; 243780; 12383; 243781	2	
Lubrication bearings	Seals	13219; 13279	2	
Basic Engineering Support	Principles of transfer	243762	2	

<b>Electro-mechanics-related Modules</b>				
Conduct an automotive service	Automobile service Battery service	243769	2	
Mechanical technology	Safety considerations in the work environment	13214	2	
	Effectively cut, punch and drill fabrication material			
	Quality and reporting requirements for cutting, drilling and punching			
Introduction to hydraulics	Principles of hydraulics	24686 ; 13219	2	
Basic Electrics	Install electric wire ways	10253	2	
Maintain and repair	Maintaining and repairing equipment	13221	2	
Maintain direct and indirect drives	Direct and indirect drivers	13216	3	
<b>Cross-cutting Generic Modules</b>				
Drawing and	Engineering	12215	2	

measuring	drawing			
Introduction to hydraulics	Hydraulic components, hose, connectors, and fitting	12476; 243780	2	
Working with materials	Using tools	119744	2	
Learning tools and techniques	Use of computers in the workplace	116932	2	
<b>National Certificate: Electro-mechanics</b>		<b>58288</b>	<b>3</b>	1. Blue Horison Properties 53 (Pty) Ltd T/A Durnacol Skills Innovation Hu 2. Inncor Training & Development (Pty) Ltd (VEREENIGING) (TP)
<b>Further Education and Training Certificate: Electro-mechanics</b>		<b>58270</b>	<b>4</b>	Blue Horison Properties 53 (Pty) Ltd T/A Durnacol Skills Innovation Hu
<b>National Certificate: Electro-mechanical Winding</b>		<b>58860</b>	<b>2</b>	None
<b>Module Title</b>	<b>Topic Title</b>	<b>US ID</b>	<b>NQF Level</b>	
<b>Electro-mechanical Winding-specific Modules</b>				
Electrical Measuring instruments	Electrical Measuring instruments	258918 (10237)	2	
Perform basic winding/Rewinding	Perform basic winding/Rewinding	9921	2	
Dismantle Basic Components	Dismantle Basic Components	244664	2	
Prepare Metal Surfaces	Prepare Metal Surfaces	335896 ( 9919)	2	

<b>Electro-mechanical Modules</b>	<b>Winding-related</b>			
Production processes	Assembling and finishing manufactured products	9877; 9878	2	
Production processes	Improving productivity	14445	2	
Cutting and welding	Oxy- fuel cutting and welding	119753	3	
<b>Cross-cutting Generic Modules</b>				
Safety and quality induction	Safety in the workplace	13222	2	
Safety and quality induction	Monitoring quality	9322	2	
Safety and quality induction	Fire Fighting	12484	2	
Safety and quality induction	First Aid	12483	2	
Drawings and measuring	Measuring and marking off	12476	2	
Life Skills	Introduction to the world of work	12466	2	
Life Skills	Working and communicating with others	13258	2	
Life Skills	HIV and Aids in the workplace	12463	2	

Working with materials and tools	Using tools	119744	2	
Learning tools and techniques	Learning tools and techniques	13202;12465	2	
<b>National Certificate: Electro-mechanical Winding</b>		<b>58862</b>	<b>3</b>	None
<b>Further Education and Training Certificate: Electro-mechanical Winding</b>		<b>58861</b>	<b>4</b>	None
				<ol style="list-style-type: none"> <li>1. Africa International Training Facilities T/A AITF (BREDELL) (TP)</li> <li>2. August General Servicing SA (Pty) Ltd (ALRODE) (TP)</li> <li>3. Belique Training Centre cc (ALBERTON) (TP)</li> <li>4. Bevline Mechanical Projects (Pty) Ltd (PROSPECTON) (TP)</li> <li>5. Black Eagle Training (PIETERMARITZBURG) (TP)</li> <li>6. Dragon Precision Training Centre (ESTCOURT) (TP)</li> <li>7. Gijima Holdings (Pty) Ltd T/A Industrial Skills Development - Middelb</li> <li>8. Inncor Training &amp; Development (Pty) Ltd (VEREENIGING) (TP)</li> <li>9. MCD Training Centre (Pty) Ltd (VEREENIGING) (TP)</li> <li>10. Metal Mining Training Interventions (Pty) Ltd (MIDDELBURG) (TP)</li> </ol>
<b>National Certificate: Engineering Fabrication</b>		<b>58722</b>	<b>2</b>	

				11. Planet Waves 237 (Pty) Ltd T/A Occupational Learning Centre (OLC) (PRE) 12. SSS Sheet Metal Work cc T/A Sheetch SA (DURBAN) (TP) 13. Wilbat Projects 148 (Pty) Ltd (BLUFF) (TP) 14. Wilbat Projects 148 (Pty) Ltd (ISIPINGO) (TP) 15. World Focus 382 cc T/A Richards Bay Technical Training 16. World Focus 382 cc T/A Richards Bay Technical Training & Assessment Ce
Module Title	Topic Title	US ID	NQF Level	
Mechanical Technology	Safety considerations in the work environment	12239; 13214 (core)	2	
	Effectively cut, punch and drill fabrication material			
	Quality and reporting requirements for			

	cutting, drilling and punching			
Fabrication	Prepare for fabrication activity	12240; 12246 (core)	2	
	Conduct fabrication activity			
	Quality and reporting requirements for fabrication			
	Conduct fabrication activities safely			
Gas cutting	Contour marker method	244339 (elective)	3	
<b>Engineering Modules</b>		<b>Fabrication-related</b>		
The welder's work environment	Identification of weld joints	14713 (elective)	2	
	Welding symbols and related sketches			
Basic oxy-fuel welding, cutting and brazing	Oxy-fuel equipment and gas cutting techniques	243067 (core)	2	
	Oxy-acetylene welding	243072 (core)	2	

Introduction to arc welding and processes	Shielded metal arc welding process	243063 (core)	2	
Crane operations	Introducing cranes	8039	3	
Crane operations	Lift, move and /or transport a load	8039	3	
Pipe system fabrication	Pipe system fabrication	10824; 254357 (elective)	3	
Rigging with lifting machines	Lifting hoisting machines	116235	2	
Weld carbon steel work pieces using different processes and techniques	Weld carbon steel in all positions using oxyacetylene gas	243053 (elective)	3	
	Weld carbon steel work pieces using the gas metal arc welding process in all positions	243064 (elective)	3	
	Safely weld carbon steel work pieces using shielded metal arc process in all positions	243056 (elective)	3	
<b>Cross-cutting Generic Modules</b>				
Safety and quality induction	Safety in the workplace	9443 (core) 14683; 9964; 13167; 13222 (elective)	2	



Safety and quality induction	Fire Fighting	12484	2	
Safety and quality induction	First Aid	12483	2	
Drawing and measuring	Engineering drawing	243075 (core)	2	
Drawing and measuring	Measuring and marking off	12476; 244342 (core)	2	
Life skills	Introduction to the world of work	12466 (elective)	2	
Life skills	Personal and business finance	9268 (elective)	2	
Life skills	HIV and Aids in the workplace	12463	2	
Working with materials and tools	Engineering materials	244345; 12477 (core)	2	
Working with materials and tools	Using tools	12219; 119744 (core)	2	
Learning tools and techniques	Learning and studying techniques	12465 (elective)	2	
Learning tools and techniques	Use of computers in the workplace	116932; 117867; 117902 (elective)	2	
Workplace fundamentals	Safety in the workplace	116520 (elective)	3	

<p><b>National Certificate: Engineering Fabrication</b></p>	<p><b>58720</b></p>	<p><b>3</b></p>	<ol style="list-style-type: none"> <li>1. Africa International Training Facilities T/A AITF (BREDELL) (TP)</li> <li>2. August General Servicing SA (Pty) Ltd (ALRODE) (TP)</li> <li>3. Bevline Mechanical Projects (Pty) Ltd (PROSPECTON) (TP)</li> <li>4. Black Eagle Training (PIETERMARITZBURG) (TP)</li> <li>5. Dragon Precision Training Centre (ESTCOURT) (TP)</li> <li>6. Gijima Holdings (Pty) Ltd T/A Industrial Skills Development - Middelb</li> <li>7. Inncor Training &amp; Development (Pty) Ltd (VEREENIGING) (TP)</li> <li>8. MCD Training Centre (Pty) Ltd (VEREENIGING) (TP)</li> <li>9. Metal Mining Training Interventions (Pty) Ltd (MIDDELBURG) (TP)</li> <li>10. Planet Waves 237 (Pty) Ltd T/A Occupational Learning Centre (OLC) (PRE)</li> <li>11. SSS Sheet Metal Work cc T/A Sheetch SA (DURBAN) (TP)</li> <li>12. Wilbat Projects 148 (Pty) Ltd (BLUFF) (TP)</li> <li>13. Wilbat Projects 148 (Pty) Ltd (ISIPINGO) (TP)</li> <li>14. World Focus 382 cc T/A Richards Bay Technical Training</li> <li>15. World Focus 382 cc T/A Richards Bay</li> </ol>
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			Technical Training & Assessment Ce
<b>Further Education and Training Certificate: Engineering Fabrication</b>	<b>58721</b>	<b>4</b>	<ul style="list-style-type: none"> <li>1. August General Servicing SA (Pty) Ltd (ALRODE) (TP)</li> <li>2. Bevline Mechanical Projects (Pty) Ltd (PROSPECTON) (TP)</li> <li>3. Dragon Precision Training Centre (ESTCOURT) (TP)</li> <li>4. Gijima Holdings (Pty) Ltd T/A Industrial Skills Development - Middelb</li> <li>5. Inncor Training &amp; Development (Pty) Ltd (VEREENIGING) (TP)</li> <li>6. MCD Training Centre (Pty) Ltd</li> </ul>

				(VEREENIGING) (TP) 7. Metal Mining Training Interventions (Pty) Ltd (MIDDELBURG) (TP) 8. World Focus 382 cc T/A Richards Bay Technical Training & Assessment Ce
<b>National Certificate: Foundry Operations</b>		<b>66512</b>	<b>2</b>	1. ArcelorMittal South Africa Ltd (VANDERBIJLPARK) (TP) 2. QTE Training & Consulting cc T/A QTE (GERMISTON) (TP) 3. Scaw Metals Group (Pty) Ltd T/A Scaw Metals (DINWIDDIE) (TP)
<b>Module Title</b>	<b>Topic Title</b>	<b>US ID</b>	<b>NQF Level</b>	
Foundry materials properties	Foundry materials properties	120402; 13165; 9909	2	
Melting operations	Melting operations	264095; 264044; 260077; 114881	2	
Furnace materials	Metals and refractory materials	264115; 13966; 9663; 13965	2	
Patternmaker	Patternmaker	264075; 264054; 114881	2	

<b>Foundry Operations-related Modules</b>				
Perform load slinging	Perform load slinging	12481	2	
Basic oxy fuel welding, cutting and brazing	Oxy fuel equipment and gas cutting techniques	243067	2	
	Oxy –acetylene welding			
	Oxy fuel brazing			
<b>Cross-cutting Generic Modules</b>				
Safety and quality induction	Fire Fighting	12484	2	
Safety and quality induction	First Aid	12483	2	
Safety and quality induction	Safety and environmental impact	259604	2	
Drawing and measuring	Engineering drawings	12238	2	
Drawing and measuring	Mark off made easy	13238	2	
Life Skills	Introduction to the world of work	12466	2	
Life Skills	Working and communicating with others	9322	2	
Life Skills	Personal and business finance	9268	2	

Life Skills	HIV and Aids in the workplace	13169	2	
Working with materials and tools	Using tools	12219	2	
Working with materials and tools	Introduction to hand and measuring tools and tasks	13159	2	
Learning tools and techniques	Learning tools and techniques	12465; 13202; 12465	2	
Learning tools and techniques	Use of computers in the workplace	116938	2	
Engineering and manufacturing technology	Engineering drawings	9885	3	
<b>National Certificate: Foundry Operations</b>		<b>66449</b>	<b>3</b>	<ol style="list-style-type: none"> <li>1. ArcelorMittal South Africa Ltd (VANDERBIJLPARK) (TP)</li> <li>2. QTE Training &amp; Consulting cc T/A QTE (GERMISTON) (TP)</li> <li>3. Scaw Metals Group (Pty) Ltd T/A Scaw Metals (DINWIDDIE) (TP)</li> </ol>

				<ol style="list-style-type: none"> <li>1. BMW SA (Pty) Ltd (ROSSLYN) (TP)</li> <li>2. Dawsons Training Academy (Pty) Ltd (DURBAN) (TP)</li> <li>3. Imperial Technical Training Academy (GERMISTON) (TP)</li> <li>4. Imperial Technical Training Academy (WADEVILLE) (TP)</li> <li>5. Inncor Training &amp; Development (Pty) Ltd (VEREENIGING) (TP)</li> <li>6. McCarthy Academy Cape Town (BLACKHEATH) (TP)</li> <li>7. McCarthy Automotive Artisan Academy (MIDRAND) (TP)</li> <li>8. McCarthy Automotive Artisans Academy (PINETOWN) (TP)</li> <li>9. The Automobile Association of South Africa T/A AA Training Academy (MO)</li> <li>10. The Automobile Association South Africa T/A AA Training Academy (MIDRA)</li> <li>11. Volkswagen of South Africa (Pty) Ltd - Technical Learning Academy (UIT)</li> </ol>
<b>Further Education and Training Certificate: Foundry Operations</b>	<b>78883</b>	<b>4</b>		
<b>National Certificate: Lifting Machine Operations</b>	<b>64829</b>	<b>3</b>		None
<b>Module Title</b>	<b>Topic Title</b>	<b>US ID</b>	<b>NQF Level</b>	
<b>Lifting Machine Operations-specific Modules</b>				
Lifting machinery and load handling	Overview of lifting machinery	116283; 260778; 260837	3	

Lifting machinery and load handling	Identifying and handling loads	116283; 260778; 260837	3	
Crane operations	Introducing cranes	8039, 12481, 115903, 116075, 116231, 116253, 116254, 116255, 116583, 116976, 117001, 117036, 242978, 242982, 243021, 253590, 253595, 253600, 254355, 260757, 60758, 260759, 260760, 260761, 260763, 260764, 260765, 260777,	3	



		260780, 260781, 260798, 260858.		
Crane operations	Prepare lift, move or transport a load	8039, 12481, 115903, 116075, 116231, 116253, 116254, 116255, 116583, 116976, 117001, 117036, 242978, 242982, 243021, 253590, 253595, 253600, 254355, 260757, 60758, 260759, 260760,	3	

		260761, 260763, 260764, 260765, 260777, 260780, 260781, 260798, 260858		
Crane operations	Post operating crane operations	8039, 12481, 115903, 116075, 116231, 116253, 116254, 116255, 116583, 116976, 117001, 117036, 242978, 242982, 243021, 253590, 253595, 253600, 254355, 260757, 60758, 260759,	3	

			260760, 260761, 260763, 260764, 260765, 260777, 260780, 260781, 260798, 260858.		
Lifting operations	truck	Introducing trucks	lift	242942; 242974; 242981; 260797; 260799; 260818	3
Lifting operations	truck	Prepare to lift, move or transport a load		242972; 242974; 242981; 260762; 260797	3
Lifting operations	truck	Lift, move and or transport a load		242972; 242974; 242981; 260762; 260797; 260818	3
Lifting operations	truck	Post operating truck operations	lift	242972; 242974;	3

		242981; 260762; 260797; 260818		
MEWP Operations	Introducing MEWPs	243272; 243273; 243276	3	
MEWP Operations	Lift personnel and/or material with MEWP	243272; 243273; 243276	3	
MEWP Operations	Post operating MEWP operations	243272; 243273; 243276	3	
<b>Lifting Machine Operations-related Modules</b>				
Use lifting equipment to lift loads	Lifting equipment	15123; 253582	2	
Do support activities	Identify and perform a support activity	116533	2	
<b>Cross-cutting Generic Modules</b>				
Safety and quality induction	Fire Fighting	12484	2	
Safety and quality induction	First Aid	116534	2	
Life Skills	Deal with dynamic and diverse work environment	9530;12429	3	

				<ol style="list-style-type: none"> <li>1. BMW SA (Pty) Ltd (ROSSLYN) (TP)</li> <li>2. Ford Motor Company of Southern Africa (Struandale Engine Plant) (STRUUA)</li> <li>3. Mercedes Benz South Africa (Pty) Ltd (EAST LONDON) (TP)</li> <li>4. Siemens Ltd (HALFWAY HOUSE) (TP)</li> <li>5. Tekmation (Pty) Ltd T/A Tekmation Training Institute (DURBAN) (TP)</li> <li>6. Toyota Academy Toyota SA Motors (Pty) Ltd (ISIPINGO) (TP)</li> <li>7. Volkswagen of South Africa (Pty) Ltd - Technical Learning Academy (UIT)</li> </ol>
<b>National Certificate: Mechatronics</b>		<b>67629</b>	<b>2</b>	
<b>Module Title</b>	<b>Topic Title</b>	<b>US ID</b>	<b>NQF Level</b>	
<b>Mechatronics-specific Modules</b>				
Master the fundamentals of the basic digital circuits	Demonstrate an understanding of basic digital circuits	253074	2	
<b>Mechatronics-related Modules</b>				
Cutting and welding	Oxy- Fuel cutting and welding	119753	3	
Assemble mechanical components	Assemble mechanical components	253440	2	
Basic electrics	Install electric wire ways	13136	2	
<b>Cross-cutting Generic Modules</b>				
Safety and quality induction	Safety in the workplace	13220	2	
Drawing and	Engineering	12215	2	

measuring	drawings			
Drawing and measuring	Measuring and marking off	12476	2	
Drawing and measuring	Mark off made easy	13238	2	
Life skills	Introduction to the world of work	9322;12466	2	
Life skills	Working and communicating with others	13217	2	
Life skills	Personal and business finance	9268	2	
Working with materials and tools	Using tools	12219	2	
Learning tools and techniques	Learning tools and techniques	12465	2	
Learning tools and techniques	Use of computers in the workplace	117924	2	
<b>National Certificate: Mechatronics</b>		<b>67609</b>	<b>3</b>	<ol style="list-style-type: none"> <li>1. BMW SA (Pty) Ltd (ROSSLYN) (TP)</li> <li>2. Ford Motor Company of Southern Africa (Struandale Engine Plant) (STRUUA)</li> <li>3. Mercedes Benz South Africa (Pty) Ltd (EAST LONDON) (TP)</li> <li>4. Siemens Ltd (HALFWAY HOUSE) (TP)</li> <li>5. Tekmation (Pty) Ltd T/A Tekmation Training Institute (DURBAN) (TP)</li> <li>6. Toyota Academy Toyota SA Motors (Pty) Ltd (ISIPINGO) (TP)</li> <li>7. Volkswagen of South Africa (Pty) Ltd -</li> </ol>

			Technical Learning Academy (UIT)
<b>Further Education and Training Certificate: Mechatronics</b>	<b>67649</b>	<b>4</b>	<ol style="list-style-type: none"> <li>1. BMW SA (Pty) Ltd (ROSSLYN) (TP)</li> <li>2. Ford Motor Company of Southern Africa (Struandale Engine Plant) (STRUUA)</li> <li>3. Mercedes Benz South Africa (Pty) Ltd (EAST LONDON) (TP)</li> <li>4. Siemens Ltd (HALFWAY HOUSE) (TP)</li> <li>5. Tekmation (Pty) Ltd T/A Tekmation Training Institute (DURBAN) (TP)</li> <li>6. Volkswagen of South Africa (Pty) Ltd - Technical Learning Academy (UIT)</li> </ol>

<b>National Certificate: Mechanical Engineering</b>		<b>59689</b>	<b>2</b>	1. Barloworld South Africa (Pty) Ltd T/A Barloworld-Equipment (ISANDO) (T) 2. E & A Consulting Services T/A Isizwe Mechanical & Welding Training Cen 3. Gijima Holdings (Pty) Ltd T/A Industrial Skills Development - Middelb 4. Izizwe Training Centre (Pty) Ltd T/A Simtech Training (NORTHDENE) (TP) 5. Maritzburg Engineering cc (MKONDENI) (TP) 6. MSC Artisan Academy (Pty) Ltd T/A Master Artisan Academy SA (EAST LOND 7. Mthetana Trading & Construction T/A Multi Skill Training Centre (DURBA 8. Shine The Way 281 cc T/A Industrial Training Centre (NEW GERMANY) (TP) 9. Toyota Academy Toyota SA Motors (Pty) Ltd (ISIPINGO) (TP)
<b>Module Title</b>	<b>Topic Title</b>	<b>US ID</b>	<b>NQF Level</b>	
Perform load slinging	Perform load slinging	12481	2	
Mechanical technology	Cut, punch and drill fabrication material	13214 (elective)	2	
Assemble mechanical components	Assemble mechanical components	253440 (core)	2	
Electrical technology	Basic electronics	12218 (elective)	2	
Introduction to	Principles of	244686	2	



hydraulics	hydraulics	(elective)		
	Components, hose and piping	244688; 244690 (elective)		
	Static seals	13219 (core)		
Introduction to pneumatics	Principles of pneumatics	244686 (elective)	2	
	Components, hose and tubing	244691; 244688 (elective)		
	Static seals	13219 (core)		
Basic electrics	Install electric wire ways	13136 (elective)	2	
Simple engineering drawings	Pipe fitting drawings	243075 (elective)	2	
Pipe systems and components	Pipe systems, components, hangers and threaded pipes	253474; 253495; 253496 (elective)	2	
Maintenance and repair	Maintaining and repairing equipment	13221 (elective)	2	
Basic oxy-fuel welding, cutting and brazing	Oxy-fuel equipment and gas cutting techniques	243067 (elective)	2	
	Oxy-fuel brazing	243069 (elective)		
Introduction to arc welding and	Shielded metal arc welding process	243063 (elective)	2	

processes				
Cutting and welding	Oxy-fuel cutting and welding	119753 (elective)	3	
Pipe system fabrication	Flanged sections, jigs and hydraulic bending	254357 (elective)	3	
<b>Machining, Tooling and CNC Production Machining-specific</b>				
Operate and monitor a drilling machine	Operate and monitor a drilling machine	13214; 13297	2	
Operate and monitor a centre lathe	Operate and monitor a centre lathe	13215	2	
Operate and monitor a milling machine	Operate and monitor a milling machine	13204	2	
Operate and monitor a surface grinding machine	Operate and monitor a surface grinding machine	13215	2	
Operate and monitor CNC machining equipment	Operate and monitor CNC machining equipment	243014	2	
<b>Cross-cutting Generic Modules</b>				
Safety and quality induction	Safety in the workplace	13220; 9839 (core)	2	
Safety and quality	Fire Fighting	12484	2	

induction				
Safety and quality induction	First Aid	12483	2	
Drawing and measuring	Engineering drawing	12215; 243075 (core)	2	
Drawing and measuring	Measuring and marking off	12476 (core)	2	
Life skills	Introduction to the world of work	12466 (core)	2	
Life Skills	Working and communicating with others	9322; 13217 (elective)	2	
Life Skills	Personal and business finance	9268 (elective)	2	
Life Skills	HIV and Aids in the workplace	12463	2	
Working with materials and tools	Engineering materials	12477 (core)	2	
Working with materials and tools	Using tools	12219; 119744 (core)	2	
Learning tools and techniques	Learning and studying techniques	12465 (elective)	2	
Learning tools and techniques	Use of computers in the workplace	116932; 116938; 117924; 117867; 117902; 117924	2	

		(elective)		
<b>National Certificate: Mechanical Engineering: Fitting</b>			<b>59669</b>	<b>3</b>
				<ol style="list-style-type: none"> <li>1. Black Eagle Training (PIETERMARITZBURG) (TP)</li> <li>2. Blue Horison Properties 53 (Pty) Ltd T/A Durnacol Skills Innovation Hu</li> <li>3. Customised Training Specialists Trust T/A CTS (PINETOWN) (TP)</li> <li>4. Dragon Precision Training Centre (ESTCOURT) (TP)</li> <li>5. Gijima Holdings (Pty) Ltd T/A Industrial Skills Development - Middelb</li> <li>6. Hansing Engineering (Pty) Ltd (SALDANHA) (TP)</li> <li>7. Izizwe Training Centre (Pty) Ltd T/A Simtech Training (NORTHDENE) (TP)</li> <li>8. MSC Artisan Academy (Pty) Ltd T/A Master Artisan Academy SA (EAST LOND</li> <li>9. Mthetana Trading &amp; Construction T/A Multi Skill Training Centre (DURBA</li> <li>10. Shine The Way 281 cc T/A Industrial Training Centre (NEW GERMANY) (TP)</li> <li>11. Tekmation (Pty) Ltd T/A Tekmation Training Institute (DURBAN) (TP)</li> <li>12. Toyota Academy Toyota SA Motors (Pty) Ltd (ISIPINGO) (TP)</li> <li>13. Volkswagen of South Africa (Pty) Ltd - Technical Learning Academy (UIT</li> <li>14. World Focus 382 cc T/A Richards Bay</li> </ol>

				Technical Training
Module Title	Topic Title	US ID	NQF Level	
Produce detailed engineering drawings	Engineering drawings	13298 (elective)	3	
Maintain bearings and lubricating systems	Maintain bearings and lubricating systems	13277; 13283 (core)	3	
Maintain direct and indirect drives	Direct and indirect drives	13216; 13280 (core)	3	
Maintain gearboxes	Maintain gearboxes	13325 (elective)	3	
Maintain conveyor systems	Conveyor systems	253475 (elective)	3	
Maintenance of pumps	Centrifugal and positive displacement pumps	253391; 253497 (elective)	3	
Maintain valves and steam traps	Manual and motorised valves and steam traps	253423; 253439 (elective)	3	
Maintain brakes and clutches	Brakes and clutches	13282 (elective)	3	
Maintain auxiliary equipment	Heat exchangers, pressure vessels, filters and strainers	253430; 253434 (elective)	3	
Maintain compressors	Compressors	253494 (elective)	3	

<b>Fitting-related Modules</b>			
Introduction to arc welding and processes	Shielded metal arc welding process	243063 (elective)	2
Crane Operations	Prepare lift, move or transport a load	242976	3
Rigging with lifting machines	Lifting hoisting machines	242981 (elective)	2
<b>Cross-cutting Generic Modules</b>			
Life Skills	Introduction to the world of work	12456 (core)	2
Life Skills	Personal and business finance	9526; 9268 (elective)	2
Workplace fundamentals	Safety in the workplace	13223 (core)	3
Life Skills	Team dynamics	116714 (core)	3
Life Skills	Personal management skills	9530 (core)	3
<b>Further Education and Training Certificate: Mechanical Engineering: Fitting US ID 59709</b>			4
<b>National Certificate: Fluid Power</b>		<b>58882</b>	<b>3</b>
<b>Module Title</b>	<b>Topic Title</b>	<b>US ID</b>	<b>NQF Level</b>
<b>Fluid Power-specific Modules</b>			
			1. Gijima Holdings (Pty) Ltd T/A Industrial Skills Development - Middelb 2. Mthetana Trading & Construction T/A Multi Skill Training Centre (DURBA 3. Shine The Way 281 cc T/A Industrial Training Centre (NEW GERMANY) (TP) 4. Toyota Academy Toyota SA Motors (Pty) Ltd (ISIPINGO) (TP)

Electrical technology	Programmable logic controllers (PLC)	113899 (elective)	3	
Hydraulic operation and installation	Hydraulic operation and installation	13117; 244716 (core)	3	
Hydraulic operation and installation	Cleaning: conveyance systems	244717 (core)	3	
Hydraulic operation and installation	Hose, piping and tubing	244710; 244712 (core) 244709 (elective)	3	
Basic hydraulic maintenance	Repair cylinders and installation of hydraulic seals	244704 (core) 244715 (elective)	3	
Basic hydraulic maintenance	Hydraulic machine maintenance and instrumentation	13117; 244683 (core) 244711 (elective)	3	
Pneumatic operation and installation	Operation of pneumatic components	244714 (core)	3	
Pneumatic operation and installation	Tube installation and assembly	244710; 244712 (core)	3	
Basic pneumatic maintenance	Instrumentation	244683 (core)	3	
Basic pneumatic maintenance	Installation and maintenance: basic pneumatic systems	13139 (core) 244705 (elective)	3	

Basic pneumatic maintenance	Repair and test pneumatic cylinders and fit seals	244713 (elective)	3	
<b>Fluid Power-related Modules</b>				
Mechanical technology	Safety considerations in the work environment	13214 (elective)	2	
Weld carbon steel work pieces using different processes and techniques	Weld carbon steel in all positions using cored-wire welding process	243052 (elective)	3	
<b>Cross-cutting Generic Modules</b>				
Life skills	Personal and business finance	9526; 9268 (elective)	2	
Working with materials and tools	Engineering materials	12477 (core)	2	
Workplace fundamentals	Quality management	13234 (elective)	3	
Engineering and manufacturing technology	Engineering materials	13274 (elective)	3	
Engineering and manufacturing technology	Engineering drawings	9885 (core)	3	
Life skills	Introduction to the world of work	12456 (elective)	3	
<b>Further Education and Training</b>		<b>58880</b>	<b>4</b>	None



Certificate: Fluid Power				
				1. Barloworld South Africa (Pty) Ltd T/A Barloworld-Equipment (ISANDO) (T 2. Black Eagle Training (PIETERMARITZBURG) (TP) 3. Izizwe Training Centre (Pty) Ltd T/A Simtech Training (NORTHDENE) (TP) 4. Maritzburg Engineering cc (MKONDENI) (TP) 5. Service Corps T/A Works Training School (ELANDSFONTEIN) (TP) 6. Toyota Academy Toyota SA Motors (Pty) Ltd (ISIPINGO) (TP) 7. Volkswagen of South Africa (Pty) Ltd - Technical Learning Academy (UIT 8. World Focus 382 cc T/A Richards Bay Technical Training 9. World Focus 382 cc T/A Richards Bay Technical Training & Assessment Ce
<b>National Certificate: Mechanical Engineering: Machining and Tooling, inclusive of CNC Machining 63649</b>			<b>3</b>	
Module Title	Topic Title	US ID	NQF Level	
<b>Machining and Tooling-specific Modules</b>				
Performing turning operations	Performing turning operations	258717	3	
Perform milling Operation	Perform milling Operation	243024	3	
Performing Grinding Operations	Performing Grinding Operations	258716	3	

Set up and start CNC machining process	Set up and start CNC machining process	243024	3	
Maintenance of production tooling	Maintenance of production tooling	258722	3	
Manufacture production tooling to drawing or sample part	Manufacture production tooling to drawing or sample part	258723	3	
Produce components by spark eroding machining operations	Produce components by spark eroding machining operations	258715	3	
<b>Machining and Tooling-related Modules</b>				
Produce detailed engineering drawings	Engineering drawings	13298	3	
Planning and logistics	Role of logistics in a production environment	116218	3	
<b>Cross-cutting Generic Modules</b>				
Life skills	Personal and business finance	9526	2	
Life skills	Personal management skills	9530	3	
Workplace fundamentals	Quality management	13234 (core)	3	

Communications and personal management	Writing and managing reports	12488	4	
Learning tools and techniques	Learning techniques	12457	3	
Workplace fundamentals	Manage quality	243025	4	
Learning tools and techniques	Learning techniques	117877 (elective)	3	
Engineering and manufacturing technology	Engineering materials	13274 (elective)	3	
<b>Further Education and Training Certificate: Mechanical Engineering: Machining and Tooling, inclusive of CNC Machining 63629</b>			<b>4</b>	<ul style="list-style-type: none"> <li>1. Barloworld South Africa (Pty) Ltd T/A Barloworld-Equipment (ISANDO) (T)</li> <li>2. Gijima Holdings (Pty) Ltd T/A Industrial Skills Development - Middelb</li> <li>3. Maritzburg Engineering cc (MKONDENI) (TP)</li> <li>4. Toyota Academy Toyota SA Motors (Pty) Ltd (ISIPINGO) (TP)</li> </ul>
<b>National Certificate: Mechanical Engineering: Pipe Fitting</b>		<b>59750</b>	<b>3</b>	<ul style="list-style-type: none"> <li>1. Wilbat Projects 148 (Pty) Ltd (BLUFF) (TP)</li> <li>2. Wilbat Projects 148 (Pty) Ltd (ISIPINGO) (TP)</li> </ul>
<b>Further Education and Training Certificate: Mechanical Engineering: Pipe Fitting 58779</b>			<b>4</b>	<ul style="list-style-type: none"> <li>1. MacSteel Services Centres SA (WADEVILLE) (TP)</li> <li>2. QTE Training &amp; Consulting cc T/A QTE (GERMISTON) (TP)</li> <li>3. Step Across Training (BRITS) (TP)</li> <li>4. Tirisano ka Batho Consultants (Pty) Ltd</li> </ul>

				(BOKSBURG) (TP)
<b>National Certificate: Mechanical Handling (Rigging)</b>		<b>59729</b>	<b>2</b>	1. Matimba Rigging & Training (SECUNDA) (TP) 2. World Focus 382 cc T/A Richards Bay Technical Training & Assessment Ce
<b>Module Title</b>	<b>Topic Title</b>	<b>US ID</b>	<b>NQF Level</b>	
Manual Handling	Rigging hand tools	253555	2	
Manual Handling	Synthetic fibre ropes	253591	2	
Manual Handling	Application of lifting equipment	253575; 253582; 253603	2	
Lifting machinery skills	Application of crane regulations	116283; 253638	2	
Rigging with lifting machines	Lifting hoisting machines	116235; 242976; 253595; 242981	2	
Plant (lifting) operations	Application of crane regulations	116283	2	
Plant (lifting) operations	Mechanised Plant Operations	116253; 116254	2	
<b>Mechanical handling-related Modules</b>				
Use lifting equipment loads	Lifting equipment	253582	2	

Mechanical Technology	Safety considerations in the work environment.	13214	2	
	Effectively cut, punch and drill fabrication materials			
	Quality and reporting requirements cutting, drilling and punching			
Basic oxy-fuel welding , cutting and brazing	Oxy-fuel equipment and gas cutting techniques	243072;243067	2	
Introduction to arc welding and processes	Shielded metal arc welding process	243063	2	
Cutting and welding	Oxy – fuel cutting and welding	2430678	3	
<b>Cross-cutting Generic Modules</b>				
Safety and quality induction	Safety in the workplace	9839	2	
Drawing and measuring	Engineering drawings	12215	2	
Drawing and measuring	Measuring and marking off	12476	2	

Life skills	Introduction to the world of work	12466	2	
Working with materials and tools	Using tools	12477; 12219	2	
Learning tools and techniques	Learning and studying techniques	12465	2	
<b>National Certificate: Mechanical Handling (Rigging)</b>		<b>59730</b>	<b>3</b>	Matimba Rigging & Training (SECUNDA) (TP)
<b>Further Education and Training Certificate: Mechanical Handling (Rigging) 59731</b>			<b>4</b>	Matimba Rigging & Training (SECUNDA) (TP)

<p><b>National Certificate: Welding</b> <b>Application and Practice</b></p>	<p><b>57881</b></p>	<p><b>2</b></p>	<ol style="list-style-type: none"> <li>1. Africa International Training Facilities T/A AITF (BREDELL) (TP)</li> <li>2. ALDABRI 106 (PTY) LTD T/A IQTEK (Jacobs)(TP) (Legacy)</li> <li>3. All-Rite Services cc (AUSTERVILLE) (TP)</li> <li>4. Arc-Tec Training Centre (PAARDEN EILAND) (TP)</li> <li>5. ArcelorMittal South Africa Ltd (VANDERBIJLPARK) (TP)</li> <li>6. August General Servicing SA (Pty) Ltd (ALRODE) (TP)</li> <li>7. Bevline Mechanical Projects (Pty) Ltd (PROSPECTON) (TP)</li> <li>8. Black Eagle Training (PIETERMARITZBURG) (TP)</li> <li>9. CAPE GLOBAL CONSTRUCTION &amp; ENGINEERING TRAINING CENTRE (Vredenburg)(TP)</li> <li>10. CEBC Construction Engineering &amp; Belting T/A CEBC - Welding School (DUR)</li> <li>11. Central Refinish Training Centre (BLOEMFONTEIN) (TP)</li> <li>12. DAMELIN TECHNICAL DIVISION (Cape Town)(TP)</li> <li>13. Dinyane Education &amp; Training (Pty) Ltd T/A DET Training (EVANDA) (TP)</li> <li>14. DMA Members Technical Training Centre (VANDERBIJLPARK) (TP)</li> <li>15. Dragon Precision Training Centre</li> </ol>
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			(ESTCOURT) (TP) 16. Dragon Precision Training Centre (NEWCASTLE) (TP) (Legacy) 17. Ethekeweni School of Welding (NEWCASTLE) (TP) 18. FLUOR SA (PTY) LTD T/A FLUOR TRAINING CENTRE (Secunda)(TP) 19. FURTHER EDUCATION TRADE TRAINING (Congella)(TP)
<b>National Certificate: Welding Application and Practice</b>	<b>57886</b>	<b>3</b>	<b>Same as above</b>
<b>Further Education and Training Certificate: Welding Application and Practice 57887</b>		<b>4</b>	<b>Same as above</b>



<b>National Certificate: Production Technology</b>	<b>58781</b>	<b>2</b>	<ol style="list-style-type: none"> <li>1. MacSteel Services Centres SA (WADEVILLE) (TP)</li> <li>2. Polyoak Business School (Pty) Ltd (DIEP RIVER) (TP)</li> <li>3. Professional Driver Solutions T/A PDS Training Centre (PINETOWN) (TP)</li> <li>4. QTE Training &amp; Consulting cc T/A QTE (GERMISTON) (TP)</li> <li>5. Tirisano ka Batho Consultants (Pty) Ltd (BOKSBURG) (TP)</li> </ol>
<b>National Certificate: Production Technology</b>	<b>58785</b>	<b>3</b>	<ol style="list-style-type: none"> <li>1. MacSteel Services Centres SA (WADEVILLE) (TP)</li> <li>2. QTE Training &amp; Consulting cc T/A QTE (GERMISTON) (TP)</li> <li>3. Tirisano ka Batho Consultants (Pty) Ltd (BOKSBURG) (TP)</li> </ol>
<b>Further Education and Training Certificate: Production Technology</b>	<b>58779</b>	<b>4</b>	<ol style="list-style-type: none"> <li>1. MacSteel Services Centres SA (WADEVILLE) (TP)</li> <li>2. QTE Training &amp; Consulting cc T/A QTE (GERMISTON) (TP)</li> <li>3. Step Across Training (BRITS) (TP)</li> <li>4. Tirisano ka Batho Consultants (Pty) Ltd (BOKSBURG) (TP)</li> </ol>

<p><b>Further Education and Training Certificate: Automotive Sales and Support Services 64289</b></p>	<p>4</p>	<ol style="list-style-type: none"> <li>1. BPC HR Solutions (PRETORIA) (TP)</li> <li>2. Bridgestone South Africa (Pty) Ltd - Isando Branch (ISANDO) (TP)</li> <li>3. Equal Career Services (Pty) Ltd (CENTURION) (TP)</li> <li>4. JAGUAR LAND ROVER (SOUTH AFRICA)(PTY) LTD (Irene)(TP)</li> <li>5. KwaZulu Automotive Training Services cc (KZN) (DURBAN) (TP)</li> <li>6. McCarthy Learning &amp; Development (BELLVILLE) (TP)</li> <li>7. McCarthy Learning Centre (WESTVILLE) (TP)</li> <li>8. McCarthy Training &amp; Development (IRENE) (TP)</li> <li>9. Mercedes Benz South Africa (Pty) Ltd (CENTURION) (TP)</li> <li>10. NISSAN DIESEL SOUTH AFRICA (PTY) LTD (Rosslyn)(TP)</li> <li>11. Planet Waves 237 (Pty) Ltd T/A Occupational Learning Centre (OLC) (PRE)</li> <li>12. Protea Tyres (Nelspruit) (TP)</li> <li>13. Ronald Sewell &amp; Associates SA (Pty) Ltd T/A Sewells (BRYANSTON) (TP)</li> <li>14. Volkswagen Group South Africa Training Academy (Cape Town) (TP)</li> <li>15. Volkswagen of South Africa (Pty) Ltd (CENTURION) (TP)</li> <li>16. Wildbreak 242 (Pty) Ltd (NELSPRUIT)</li> </ol>
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				(TP)
<b>Module Title</b>	<b>Topic Title</b>	<b>US ID</b>	<b>NQF Level</b>	
Overview for vehicle sales and support services	Understanding sales organisations	259879 (core)	4	
	Sustain customer relations	119676 (core)		
	Maintain ethical business	242655 (core)		
	Encourage personal development in the workplace	259918 (core)		

	Understand basic finances and money laundering legislation	242593 (elective)		
	Control workflow	259884 (elective)		
<b>Passenger Vehicle Sales-specific Modules</b>				
Conduct passenger vehicle sales and Manage products and processes – Passenger sales	Generating sales opportunities	259917 (core)	4	
	Advise customers on optimal choices	259898 (core)		
	Orientate the customer to the technical features of a passenger vehicle	259899 (elective)		
	Conduct sales	259886 (core)		
	Understand vehicle finance	259882 (elective)		
	Deliver a purchased vehicle to the client	259881 (elective)		
	Valuate used vehicles	259887 (elective)		
	Facilitate sales of products to fleet owners	259959 (core)		

	Procure and buy stock	259888 (elective)		
	Display stock	259897 (elective)		
<b>Commercial Vehicle Sales-specific Modules</b>				
Manage products and processes - Commercial sales and Conduct commercial and ORT vehicle sales	Procure and buy stock	259888 (elective)	4	
	Display stock	259897 (elective)		
	Generate selling opportunities	259917 (core)		
	Advise customers on optimal choices	259898 (core)		
	Orientate the customer to the technical features of a vehicle	259899 (elective)		
	Provide technical orientation of heavy vehicle options and add-on products	259889 (elective)		
	Conduct sales of commercial vehicles	259886 (core)		
	Understand vehicle finance	259882 (elective)		

	Deliver a purchased vehicle to the client	259881 (elective)		
	Facilitate sales of products to fleet owners	259959 (core)		
<b>Motorcycle Sales-specific Modules</b>				
Manage products and processes – Motorcycle sales and Facilitate motorcycle sales	Procure and buy stock	259888 (elective)	4	
	Display stock	259897 (elective)		
	Generate selling opportunities	259917 (core)		
	Advise customers on optimal choices	259898 (core)		
	Orientate the customer to the technical features of a motorcycle	259899 (elective)		
	Conduct motorcycle sales	259886 (core)		
	Understand vehicle finance motorcycle	259882 (elective)		
	Deliver a purchased motorcycle to the client	259881 (elective)		
	Valuate used	259887		

	motorcycles	(elective)		
	Facilitate sales of products to fleet owners	259959 (core)		
<b>Parts Sales-specific Modules</b>				
Manage products and processes – Parts sales	Procure and buy stock	259888 (elective)	4	
	Display stock	259897 (elective)		
Facilitate parts sales	Generate selling opportunities	259917 (core)	4	
	Advise customers on optimal choices	259898 (core)		
	Conduct sales	259886 (core)		
	Facilitate sales of products to fleet owners	259959 (core)		
	Receive and maintain stock	259880 (elective)		
	Administer payments	259958 (elective)		
	Demonstrate product knowledge of vehicle components and systems	259877 (elective)		
<b>Tyre Sales-specific Modules</b>				
Manage products and processes –	Procure and buy stock	259888 (elective)	4	

Tyre sales	Display stock	259897 (elective)		
Facilitate tyre sales	Generate selling opportunities	259917 (core)	4	
	Advise customers on optimal choices	259898 (core)		
	Conduct sales	259886 (core)		
	Facilitate sales of products to fleet owners	259959 (core)		
	Receive and maintain stock	259880 (elective)		
	Administer payments	259958 (elective)		
	Categorise tyre application for agricultural machinery and other applications	259883 (elective)		
	Demonstrate knowledge of automotive vehicle tyres	259885 (elective)		
<b>Finance and Insurance-specific Modules</b>				
Finance and insurance	Generating selling opportunities passenger	259917 (core)	4	



	Advise customers on optimal choices passenger	259898 (core)		
	Orientate the customer to the technical features of a passenger vehicle	259899 (elective)		
	Conduct sales	259886 (core)		
	Understand basic finances and money laundering legislation	242593 (elective)		
	Understand vehicle finance	259882 (elective)		
	Demonstrate knowledge of financial and insurance services	242584 (elective)		
	Explain credit life insurance	119260 (elective)		
	Warranty as a class of insurance	120014 (elective)		
<b>Advice on Vehicle Servicing-specific Modules</b>				
Advise on vehicle servicing	Generating selling opportunities	259917 (core)	4	
	Advise customers on optimal choices	259898 (core)		

	Conduct sales	259886 (core)		
	Process service and repair requests	259919 (elective)		
	Schedule a vehicle for servicing	259957 (elective)		
	Handover a serviced vehicle	259878 (elective)		
	Demonstrate product knowledge of vehicle components and systems	259877 (elective)		
	Facilitate sales of products to fleet owners	259959 (core)		
<b>Cross-cutting Generic Modules</b>				
Workplace fundamentals	Safety in the workplace	120344 (elective)		
Workplace fundamentals	Understanding business processes	242655 (core)		
<b>National Certificate: Service Station Operations</b>		<b>62709</b>	<b>2</b>	1. Arrow Creek Investments (Pty) Ltd T/A Avisa Academy of Learning (PRETO 2. Award Media (Pty) Ltd T/A Award Training (PORT ELIZABETH) (TP) 3. Blackbird Trading 168 cc T/A Blackbird Training Centre (CAPE TOWN) (TP) 4. BPC HR Solutions (PRETORIA) (TP) 5. Letlotlo Trust T/ Rafiki Consultants

				(BLOEMFONTEIN) (TP) 6. Planet Waves 237 (Pty) Ltd T/A Occupational Learning Centre (OLC) (PRE 7. Protea Tyres (Nelspruit) (TP) 8. Spilamart cc T/A 1st Safety & Training (SABIE) (TP) 9. Spring Lights 141 (Pty) Ltd T/A MPC College (DURBAN) (TP) 10. Spurami (Pty) Ltd T/A NETA (PORT ELIZABETH) (TP) 11. Wildbreak 242 (Pty) Ltd (NELSPRUIT) (TP)
<b>Apprenticeships</b>				
<b>Time-Based</b>				
Automotive Electrician				
Automotive Engine Fitter				
Automotive Trimmer				
Diesel Mechanic				
Fitter and Turner				
Diesel Fuel Injection Mechanic				
Motor Mechanic				
Motorcycle & Scooter Mechanic				
Vehicle Body Builder				

Tractor Mechanic				
<b>Competency Based Modular Training (CBMT)</b>				
Motor Mechanic				
Automotive Body Repairer				
Automotive Machinist				
Spray Painter				

It is clear that future skills required will only be fully understood after stakeholder consultations.

## 8. SUPPLY OF SKILLS

The skills supply has been studied in terms of the following qualifications relevant to the Motor Chamber of merSETA

FET Colleges that provide qualifications in the motor sector:

Region	Provider Name
Eastern Cape	Belcomec Training (PTY) LTD (GEORGE) (TP)
Eastern Cape	BORDER KEI TRAINING TRUST T/A BORDER TRAINING CENTRE (East London)(TP)
Eastern Cape	Eastcape Midlands College Business Unit (UITENHAGE) (TP)
Eastern Cape	Eastcape Training Centre (STRUANDALE) (TP)
Eastern Cape	Ford Motor Company of Southern Africa (Struandale Engine Plant) (STRUANDALE) (TP)
Eastern Cape	Grundy S A (Pty) Ltd T/A Remtec Manufacturing (KORSTEN) (TP)
Eastern Cape	Mercedes Benz South Africa (Pty) Ltd (EAST LONDON) (TP)
Eastern Cape	Volkswagen of South Africa (Pty) Ltd - Technical Learning Academy (UITENHAGE) (TP)
Eastern Cape	WELFIT ODDY (PTY) LTD (Perseverance)(TP)
Free State/Northern Cape	Maluti FET College (PHUTHADITJHABA) (TP)
Free State/Northern Cape	Motheo FET College (MANGAUNG) (TP)
Gauteng / NorthWest	Anglo American Platinum Corporation Ltd T/A Engineering Skills Training Centre (RANDFONTEIN) (TP)
Gauteng / NorthWest	BMW SA (Pty) Ltd (ROSSLYN) (TP)
Gauteng / NorthWest	CITY OF TSHWANE METROPOLITAN MUNICIPALITY T/A PREMOS (Pretoria West)
Gauteng / NorthWest	City of Tshwane Metropolitan Municipality T/A Tshwane Leadership & Management Academy (PRETORIA) (TP)
Gauteng / NorthWest	EGESCA TECHNICAL CENTRE (Wynberg)

Gauteng / NorthWest	ENTREPRENEURIAL DEVELOPMENT ACADEMY T/A EDA (New Doornfontein)(TP)
Gauteng / NorthWest	Ikaheng HR Services (Pty) Ltd T/A Ikaheng Technical Training Centre (SPARTAN) (TP)
Gauteng / NorthWest	Imperial Technical Training Academy (GERMISTON) (TP)
Gauteng / NorthWest	JAGUAR LAND ROVER (SOUTH AFRICA)(PTY) LTD (Irene)(TP)
Gauteng / NorthWest	KwaZulu Automotive Training Services cc (MELROSE) (TP)
Gauteng / NorthWest	McCarthy Automotive Artisan Academy (MIDRAND) (TP)
Gauteng / NorthWest	MOTOR VEHICLE SKILLS ACADEMY CC (Marshalltown)
Gauteng / NorthWest	Nissan SA (Pty) Ltd (ROSSLYN) (TP)
Gauteng / NorthWest	Qualitas Training cc (SELBY) (TP)
Gauteng / NorthWest	Sedibeng Training Centre (SEBOKENG) (TP)
Gauteng / NorthWest	Service Corps T/A Works Training School (ELANDSFONTEIN) (TP)
Gauteng / NorthWest	SOL-TECH OPLEIDINGSENTRUM (EDMS) BPK (Pretoria)(TP)
Gauteng / NorthWest	Summit Auto SA (Pty) Ltd T/A Fury Training Centre (FOURWAYS) (TP)
Gauteng / NorthWest	The Automobile Association South Africa T/A AA Training Academy (MIDRAND) (TP)
Gauteng / NorthWest	Toyota Academy Toyota SA Motors (Pty) Ltd (SANDTON) (TP)
Gauteng / NorthWest	Tshwane South College for FET (Centurion Campus) (CENTURION) (DTTC)
Gauteng / NorthWest	Tshwane South College for FET (Centurion Campus) (CENTURION) (TP)
Gauteng / NorthWest	Vuselela FET College T/A Matlosana Centre for Artisans & Learnerships (STILFONTEIN) (TP)
Gauteng / NorthWest	VUSELELA FURTHER EDUCATION & TRAINING COLLEGE (Stilfontein)(TP)
KwaZulu Natal	Blue Horison Properties 53 (Pty) Ltd T/A Durnacol Skills Innovation Hub (DURNACOL) (TP)
KwaZulu Natal	Esayidi FET College - Port Shepstone Campus (OSLO BEACH) (TP)
KwaZulu Natal	KwaZulu Automotive Training Services cc (KZN) (DURBAN) (TP)
KwaZulu Natal	MAIN ROAD TRAINING CENTRE (Blood River)
KwaZulu Natal	McCarthy Automotive Artisans Academy (PINETOWN) (TP)
KwaZulu Natal	NMI-DURBAN SOUTH MOTORS (PTY) LTD T/A NMI-DSM TRAINING CENTRE (Westmead)(TP)
KwaZulu Natal	Shukela Training Centre (Pty) Ltd (MOUNT EDGECOMBE) (TP)
KwaZulu Natal	Shukela Training Centre (Pty) Ltd (MT EDGECOMBE) (DTTC)

KwaZulu Natal	Umfoloji College FET (Sundumbili Campus) (MANDENI) (TP)
KwaZulu Natal	Wilbat Projects 148 (Pty) Ltd (BLUFF) (TP)
Mpumulanga/Limpopo	Clein's Technical Training Centre (NELSPRUIT) (TP)
Mpumulanga/Limpopo	COLLIERY TRAINING COLLEGE (Witbank)(TP)
Mpumulanga/Limpopo	FHATALUSHAKA TRAINING CENTRE cc (Makhado)
Mpumulanga/Limpopo	Mopani South East FET College (PHALABORWA) (TP)
Mpumulanga/Limpopo	Mpumalanga Regional Training Trust T/A MRTT (WITBANK) (TP)
Mpumulanga/Limpopo	Nkangala FET College - Middelburg Skills Campus (MIDDLEBURG) (TP)
Mpumulanga/Limpopo	Safika Oosthuizens Transport (Pty) Ltd T/A Safika Oosthuizens Training Institute (ERMELO) (TP)
Western Cape	Boland College (Worcester Campus) (WORCESTER) (TP)
Western Cape	COLLEGE OF CAPE TOWN (Athlone Campus)(TP)
Western Cape	False Bay College (Westlake Campus) (CAPE TOWN) (TP)
Western Cape	Imperial Technical Training Academy (BELLVILLE SOUTH) (TP)
Western Cape	iThemba Labantu Vocational Training Centre (CAPE TOWN) (TP)
Western Cape	McCarthy Academy Cape Town (BLACKHEATH) (TP)
Western Cape	Northlink College - Bellville Campus (BELLVILLE) (TP)
Western Cape	PROTECH TRAINING (Somerset West)(TP)
Western Cape	Sandown Motor Holdings (Pty) Ltd - Montague Gardens, Cape Town (MONTAGUE GARDENS) (TP)
Western Cape	South Cape College (GEORGE) (TP)
Western Cape	The Automobile Association of South Africa T/A AA Training Academy (MONTAGUE GARDENS) (TP)

## **9. ASSESSMENT OF EXISTING LEARNING MATERIAL**

The assessment of the content of the learning material in terms of unit standards is still in progress. Certain conclusions and recommendations are made in section 111 of this report.

## **10. SKILLS GAPS TO BE ADDRESSED (STRATEGY)**

Skills gaps to be addressed will be outlined in detail in the final report. Conclusions and recommendations made so far are set out in section 11 of this report.

### **10.1 STRATEGY PROCESS**

The strategy process and final strategy is set out in detail in the final report with implementation recommendations. (Annexure C). The final report interprets the entire research process and set out the way forward.

A PESTEL analysis guides a SWOT analysis. Based on the strategic analysis, strategic priorities or focus areas are formulated. Measurable objectives are then formulated to serve as implementation horizons to direct the strategy from an implementation perspective.

### **10.2 PRIORITIES AND OBJECTIVES**

The priorities and objectives will also be completed after the consultation process. Based on available information gathered so far, strategic priorities or focus areas could include:

- To expedite the delivery of artisans required by the motor industry.
- To update learning material based on 2020 drivers of change

## **11. CONCLUSION AND RECOMMENDATIONS**

### **11.1 CURRENT SSP**

There have been some factors identified in the SSP that might justify further research/investigation. This is only summarized and could need further explanation in a face-to-face setting. Below are some of the gaps/concerns/noteworthy areas:



- Some outdated statistics occurs. These statistics need to be updated where relevant and possible. In some areas, for example the sector profile, the impact of 2009-2010 data might not be so important to immediately update
- There appears to be little mention of the informal education/training section in the SSP. If important after regional consultation, informal interventions need to be updated
- A reasonable drop in employment in a 10 year period has been recorded. More strategies to redress the situation should be considered.
- It appears as if 13 085 Companies in the motor sub-sector, almost 189 900 staff and informal sector is not represented – Further study could be considered.
- The international market largely owns tyre production. Strategies to exploit opportunities for South Africa could add further value.
- Competitiveness improvement does not speak about specific global trends, especially social media, specific technological changes and eastern market growth. Findings of this report should be included in the updated SSP
- Electric car (not only manufacturing, but motor chamber specific), has no specific skills sets/occupations identified. Findings of this report should be included in the SSP
- With a high employment rate but low training rate, further empowerment initiatives could be considered.
- In the industry there is not sufficient progression through NQF Levels that may require further interventions.
- Single apprenticeship focus is reported– Level progression could add further value.
- The motor sector does not lay sufficient focus on strategic drivers (i.e. waste, greening, renewable energy, advanced technologies, etc.) –The solution is addressed in this well-timed research report.

As can be seen from the points mentioned above, some areas within the SSP need to be further developed, especially focusing on future developments. It is clear that this research project will add considerable value to the SSP.

## **11.2 UPDATING CURRICULA**

The impact assessment done so far indicates a major opportunity to update curricula and learning content in terms of the 2020 drivers of change.

Confirmation is awaited from the merSETA as to the qualifications that are still registered under the SETA and which providers are still accredited. The gap that has been identified relates to the FET colleges and their influence on qualifications. During the initial research period the following qualifications were found to be relevant in the Motor Chamber:

**Table 11.2: Qualifications**

US Based Qualifications	42
Apprenticeship (Time-Based)	10
Apprenticeship (CBMT)	4
Current Providers	97
Qualifications without providers	6

All of the above information needs to be verified by the merSETA. This information is believed to be not a true reflection of all the qualifications and that there are even more providers specific to the Motor Chamber. This also does not take into account the informal sector.

While researching the qualifications there was no sign of the significant 2020 drivers of change being mentioned in the unit-standards. If qualifications need to be focused on current and future scarce skills then these issues need to be addressed. The drivers of change linked to qualifications are as follows:

- Social media/Facebook/Twitter/LinkedIn, etc.
- Green agenda/carbon credits/environmental protection/waste act.
- Middle class growth and buying power.
- Innovation and technological changes.
- Convergence of markets and industries.
- The period after 2012 and adaptation.
- Mobile telephone/technology.
- Eastern countries (i.e. China/India/Korea) and their influences.
- Future customer – younger, smarter and more technologically orientated.
- E-learning – growth paths being developed through e-learning.
- Rural development and the informal training environment there in.
- Global thinking with globalisation of industries in mind and interdependency of markets.

During the research the closest evidence that was found of the drivers of change being addressed is the factor of safety and environmental impact. There has also been some mention of environmental awareness, but nothing on the level of the global green agenda.

The training environment in the Motor Chamber is also hindered by the fact that learners largely qualify for level 1 and 2, and do not progress beyond these levels. The skills path therefore needs to be updated and further developed where possible

Furthermore, there are certain qualifications that are only truly developed until NQF level 4 and then seem to end off at this level. For true skills growth there needs to be development past these levels and a future orientation.

### **11.3 STAKEHOLDER CONSULTATION**

Based on the research done so far, it is recommended that the following agenda be used as basis for further generation of information during stakeholder focus groups:

1. Do you have any contributions to the 2020 landscape?
2. What impact will the 2020 assumptions have on skills requirements?
3. What impact will the QCTO have on skills supply to the motor industry?
4. What changes will occur pertaining to existing and future skills within occupations?
5. Please indicate any changes to existing and Future skills requirements of occupations in terms of Scarce & Critical skills.
6. Please list the most important critical skills.
7. What are your opinions about skills outputs from institutions?
8. Can you think of any other skills demand from the sector from a future perspective?
9. Are there any other existing and future skills shortages?
10. Develop scenarios & suggest solutions to deal with skills demand for the next 5 years.
11. Please submit views and solutions to assist merSETA in fulfilling the objectives of the Skills Accord & New Growth Path.
12. What needs do you have to complete WSPs?
13. Please list your requirements and contributions in terms of Green economy skills for the Motor Chamber.
14. Please list your requirements and contributions in terms of the National infrastructure plan.
15. Please list your requirements and contributions in terms of provincial skills development strategies.

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