FP&M SETA SECTOR SKILLS PLAN

2018 – 2022

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FOREWORD

The FP&M SETA has been through a lengthy period of change. After amalgamation of three SETAs, there were operational challenges that had to be addressed, whilst at the same time a focus had to be maintained on implementation of strategy. It was a hard balance to strike, however with the support of a very pro-active and engaged Board, an innovative and strategic CEO and a hard-working management team the work has been done.

One of the concerns with the previous versions of the Sector Skills Plan (SSP) was that it seemed like a "piecing together" of three separate plans of the three ex-SETAs. The management and Board were concerned to rectify this and to produce a plan for the sector as a whole. The discussions related to the FP&M SETA "value chain" have been particularly helpful in this respect. There is a sense that all of the 13 sub-sectors are now working together to achieve economic growth and development, and there are opportunities within the value chain to address further growth and sustainability of the FP&M sector. Another concern was that industry provides the SETA with an enormous amount of valuable information, but the SPP was not reflecting that. It was important to analyse the data and make meaning of it, and to interpret the results of research in a manner that informs strategy. Whilst there will always be improvements that can be made, we have now found a way of analysing the sector and presenting the results in a manner that enables strategic discussions, not just within the SETA Board, but more broadly in the sector.

In August 2017, the senior management and Board will engage over a period of two days on the sector strategy contained in this SSP, on the strategic five-year plan to implement the strategy, on some of the strengths, weaknesses and risks involved in taking them forward, on the challenges of allocating both financial and human resources to achieve effective service delivery. There is strong buy-in at Board and management level for the plans that are now in place. It is important to emphasise that this is a "sector" plan not just a SETA plan. The challenge now will be for the SETA to engage with each of the sub-sector stakeholders and to develop partnerships, joint projects and delivery mechanisms and processes to implement the plan. There is a strongly held view in the sector that development and expansion can be achieved, and that jobs can be safeguarded and even expanded. This will require that the sector has the human capacity to achieve growth and improve competitiveness. Skills development has an important role to play in that.

The SSP aims to identify employment and growth trends, the skills requirements of the relevant sectors and to prioritise these in terms of skills development. The process takes account of the environment, the nature of the sector and the demand and supply of skills. We trust that the capacity we have built in our sector will drive the plans toward achieving the results envisaged.

Felleng Yende
Chief Executive Officer

Sipho Ngidi
Chairman

LIST OF ACRONYMS

ACRONYM	DESCRIPTION
ATR	Annual Training Report
BBBEE	Broad Based Black Economic Empowerment
CSIR	Centre for Scientific and Industrial Research
CSP	Customised Sector Programmes
DTI	Department of Trade and Industry
DHET	Department of Higher Education and Training
DPE	Department of Public Enterprises
ESSP	Environmental Sector Skills Plan
FF	Fast Fashion
FP&M SETA	Fibre, Processing and Manufacturing Sector Skills Training Authority
FSA	Forestry South Africa
GDP	Gross Domestic Product
HIV	Human Immunodeficiency Virus
HRD-SA	Human Resource Development for South Africa
HSRC	Human Resources Development Council
ILO	International Labour Organisation
ILDP	International Leadership Development Programme
IPAP	Industrial Policy Action Plan
KZN	KwaZulu-Natal

ACRONYM	DESCRIPTION
NDP	National Development Plan
NGP	New Growth Path
NSDS III	Third National Skills Development Strategy
PIFSA	Printing Industries Federation of South Africa
PSET	Post-School Education and Training
QCTO	Quality Council for Trades and Occupations
QR	Quick Response
RPL	Recognition of Prior Learning
SARS	South African Revenue Services
SETA	Sector Skills and Training Authority
SIC	Sector Industrial Classification
SIPS	Strategic infrastructure Projects
SMME	Small Medium and Micro Enterprises
SSP	Sector Skills Plan
TVET	Technical Vocational Education and Training
UOT	University of Technology
WIL	Work Integrated Learning
WSP	Workplace Skills Plan

EXECUTIVE SUMMARY

Introduction

One of the Sector Education and Training Authorities' (SETAs) chief projects is the development of the Sector Skills Plan (SSP). The SSP represents a coherent framework for (industry-level) data collection that facilitates both the analysis and implementation of policy for better and more credible planning around skills development.

Data collection tools

The main methods of data collection for the study are: a review of available literature, which include national policy and strategy documents, industry plan and sector performance reports; analysis of data, including SETA employer and employment data provided through SARS and StatsSA, economic and labour market trend data accessed through StatsSA and Quantec databases as well as industry-provided data; SETA data on grant spending and learner enrolments in recent years; interviews with industry stakeholders; employer surveys; tracer studies; focus groups with sub-sectors stakeholders and engagements with Exco and the Accounting Authority. In addition, there will be ongoing engagement with stakeholders in sub-sectors, SETA management and the project steering committee focusing specifically on the sector skills plan content and the update of the information in it pertaining to industry skills and labour market trends. In relation to the scarce skills list, efforts have been made to triangulate findings and confirm the empirical findings with stakeholders.

Sector profile

Output in the FP&M sector has tended to follow that of the wider manufacturing sector and the economy as a whole. In the first quarter of 2017, South Africa fell into economic recession after two successive quarters of no growth. In 2016, output in the FP&M sector comprised 13,7% of total manufacturing output. The FP&M sector's contribution to total output in the economy has remained relatively stable over the past five years, at an average of 3,6% year on year. Exports followed a similar trajectory, declining substantially between 2004 and 2014. Since 2010, there has been some recovery in wood and wood products, leather and leather products, footwear and wearing apparel exports in recent years. The only sub-sector that had a significant "up-turn" in exports since 2012, is paper and paper products. This is also by far the largest contributor to exports in the sector, valued at R17 billion in 2015.

There are currently 25,616 employers in the sector, the majority of whom are small, and employ less than 50 employees (FP&M Employer database, 2017). The geographical spread of employers (both large and small) is biased towards the urban regions of Gauteng, KwaZulu-Natal and the Western Cape. There are approximately 332,194 people employed in the FP&M sector. This is about a quarter of the employed in the entire manufacturing sector and 2,1% of employment in the total economy. The FP&M sector experienced a 10% decline in employment between 2010 and 2015 and a total job loss of 33,965, dropping from a peak of 3% of total employment in 2010 to 2% in 2015. KwaZulu-Natal has the most employees at 36%, followed by Gauteng (25%) and Western Cape (19%). Compared to the rest of the manufacturing sector and the economy as a whole, the FP&M sector has been shedding jobs at a higher rate.

Drivers of change

Rapidly advancing technology and innovation has had profound impact on certain FP&M sub-sectors. There are new technologies being developed in textiles, clothing and new natural fibres are being explored. Existing technology used throughout the sector in manufacturing companies in packaging, printing and print media, paper and pulp, textiles, clothing are now designed to operate faster and more efficiently. Training on new machinery and maintenance is often sourced internationally. Increased mechanisation may reduce the demand for labour. At the same time, technological changes are the biggest drivers of demand for skills, as workers have to continuously upgrade their skills to keep up. Electronic media usage has expanded

and is expected to change the face of the printing and publishing sub-sectors. Social media provides an additional source of valuable consumer data. Both national (IPAP and NDP) and sector-based industrial strategies are driving technological advancement and innovation through customised sector programmes and other initiatives.

Research into more environmentally friendly production methods such as bio-pulping is key to reducing waste and water contamination. The production of 'credence goods' should be explored further. National strategy such as the Green Economy Accord and the Environmental Sector Skills Plan all allude to the need for higher-level knowledge and skills linked to developing and using green technologies and, increased research on more sustainable means of production. Skills development must cater for such needs as well as the necessary ethical training required for developing an environmentally conscious workforce.

Occupational challenges

Employers in the FP&M sector experience a range of occupational challenges. Many manufacturing companies in clothing and textiles struggle to fill elementary positions such as pattern makers, cutters and machinists. At the same time, these companies find it difficult to source mid-high level, technical skills such as plant and machine operators, machine mechanics, technologists and technicians particularly due to mechanisation and changing technologies. Employers in print media and publishing struggle to fill professional occupations such as editing, digital publishing, translation and design. Reasons cited for these difficulties include an aging workforce, manufacturing occupations perceived as less lucrative than retail occupations, less attractive salaries, rapidly changing industry trends creating further productivity pressures, technological advancement requiring constant skills upgrading, the need for multi-level, flexible skills and underprepared graduates.

Both public and private universities and colleges supply education and training in FP&M sector. Supply-side challenges are varied. Employers interviewed complained about the availability of suitable training providers. Many were restricted to informal, on-site training due to heavy machinery and equipment on the factory floor. In clothing, the collapse of the training boards has resulted in irregular, ad-hoc training on-site training resulting in shortages amongst pattern makers, cutters and machinists. TVET colleges are underutilised due to inadequate provision and perceived poor quality of training. There is also a shortage of trainers and mentors across the sector. Production pressures have brought about the need for flexible training methods. A variety of training programmes ranging from long-term diplomas and degrees to short-term, skills programmes is a must especially in light of tight production schedules. Finally, elementary, basic-level training has been overlooked in some sub-sectors.

SETA-funded learnerships, apprenticeships, skills programmes and bursaries are an important vehicle in the supply of education and training in the FP&M sector. Over 80% of learners on learnerships are studying towards national certificates applicable to the clothing, textiles, furniture and forestry sub-sectors. The majority of apprenticeships are conducted in the Printing and Packing sub-sectors, with very few in Textiles and Clothing. Apprenticeships occur mostly in Gauteng, followed by the Western Cape, KwaZulu-Natal and Eastern Cape. Overall, completion rates are substantially higher for learnerships than apprenticeships. The FP&M Employer Tracer Study of 2014 indicates a positive correlation between the percentage of learners who complete a learnership or apprenticeship and their employability. Employers also felt that both work ethic and employee productivity improved post the learnership or apprenticeship.

Existing Partnerships

The FP&M SETA has a variety of partnerships with stakeholders in the sector. These include partnerships that relate to: i) the development of new qualifications; ii) boosting research outputs in the sector; iii) the development of SMMEs; iv) creating skills development centres of excellence and; v) the placement of graduates through internships, work experience and work integrated learning programmes. The FP&M SETA has to date accredited 21 TVET colleges providing occupationally directed programmes. In 2014/15 the SETA committed approximately R32 million towards TVET partnership projects.

Key priorities

There are several key priorities that require attention by the FP&M SETA in its sector. These are grouped as follows:

Expanding the economic and development contribution of the sector

This includes the adoption of a value chain approach to skills development through increased collaboration with other SETAs; industry collaboration within and between sub-sectors and collaboration with providers to align training programmes along the value chain. The integration of skills development into industrial cluster development is necessary. Increased competitiveness through the development of niche export markets will boost economic development and require skills development capacity. The SETA will facilitate skills development linkages with particular sub-sectors to Strategic Integrated Projects (SIPS). Skills development must address rapid technological advancements in the sector and changing methods. A commitment towards environmental sustainability will drive skills development in higher level skills such as research and the development of new technologies as well as integrating environmental ethics into regular training programmes.

Addressing demand-side challenges

The FP&M SETA will identify the scarce skills occupations where the skills may be lost due to retirement, and design interventions to address the challenges. This could include encouraging succession planning linked to internships, supported by quality coaching and mentoring.

Addressing supply-side challenges

A multi-skilled workforce must be developed without overlooking shortages in scarce, elementary skills. Existing and new employees must be developed based on a needs analysis of the industry. Flexible training methods and approaches are key in a sector that faces tight, production schedules. This includes both the recognition of formal and informal training programmes on and off the factory floor. The SETA needs a particular focus on expanding workplace located training. This implies paying attention to the capacity of employers to plan and supervise effective on the job training and for improved partnerships between employers and providers to integrate workplace and institution-based training.

Building new partnerships

A priority is the building of new partnerships with TVET colleges, government departments, other SETAs and industry. TVET integration on the supply side should be a gradual process starting with the FP&M SETA brokering partnerships between industry and the better functioning colleges. The FP&M SETA will work with relevant government departments and public entities to put in place stakeholder structures that support such partnerships

1. RESEARCH PROCESS AND METHODS

1.1 Introduction

One of the Sector Education and Training Authorities' (SETAs) chief projects is the development of the Sector Skills Plan (SSP). The SSP represents a coherent framework for (sector/industry-level) data collection, analysis and interpretation to enable credible planning around skills development. In working towards the 2018/19 to 2022/23 SSP, the FP&M SETA was guided by the Department of Higher Education and Training's SSP guidelines and requirements framework. The intention is that the SSP is informed by evidence-based research, consultation with stakeholders, systematic analysis of sub-sector needs, and strategic engagement at the level of the Board. It is also intended that the process should result in increased capacity within the SETA research team and those responsible for planning. The purpose of this section is to present the research process that was followed to prepare for this SSP and to indicate the specific research studies that were conducted to inform this SSP.

1.2 Data collection tools

The main methods of data collection for the study included: a review of available literature, including national policy and strategy documents, industry plans and sector performance reports; analysis of 2015 and 2016 SETA data, employer and employment data provided through SARS and StatsSA, economic and labour market trend data accessed through StatsSA and Quantec databases as well as industry-provided data; SETA data on grant spending and learner enrolments in recent years; interviews with industry stakeholders; employer surveys; tracer studies; focus groups with sub-sectors stakeholders and engagements with Executive Committee and the Accounting Authority. In addition, there was ongoing engagement with stakeholders in sub-sectors, SETA management and the project steering committee focusing specifically on the sector skills plan content, and the update of the information in it pertaining to industry skills and labour market trends. In relation to the scarce skills list, efforts have been made to triangulate findings and confirm the empirical findings with stakeholders. The following data collection tools were used:

1.2.1 Review of Key Literature

The literature review took into account the current FP&M SETA's SSP. Here the outlook is both national and international. It is a broad review of the sector taking into account the entire labour market. The 2016 SSP is aligned with the country's key strategies, such as the National Skills Development Strategy (NSDS II), the National Development Plan (NDP) and associated Medium Term Strategic Framework (MTSF) plans, the New Growth Path (NGP), Industrial Policy Action Plan (IPAP), the White Paper on Post School Education and Training and the Human Resource Development Strategy of South Africa (HRDS-SA) amongst others. The intention has been to extract relevant information from the documents on national policy and strategy that will enable the SETA to set out trends, challenges and opportunities, and formulate recommended interventions from the perspective of the fibre processing and manufacturing industries and the sector and do so in such a manner that positions the sector to actively contribute to, and benefit from, the overarching national development strategy. In this way, the SETA can integrate its work with that of government and play a role in achieving inclusive growth and expanded employment opportunities in the important field of manufacturing.

1.2.2 Workplace Skills Plan (WSP) and Annual Training Report (ATR)

The final submission for WSP and ATR data from employers for the period 2016/17 was on the 31st May 2016. At the FP&M SETA, the submission of the WSP and ATR is done through an online system called Indicium which allows for the companies to directly upload the WSP and ATR forms onto an electronic data capture system. This allows for clear and accurate data to be received from the companies themselves. The SETA received WSP and ATR data from approximately 788 companies in the 13 sub-sectors regarding their planned training for the year ahead (2016/17) as well as the training undertaken during the previous year (2015/16). This is an important data set and it helps us to understand what the training trends are as well as the qualifications and skills needed in the different sub-sectors. An analysis of the 2016 WSP and ATR data and the SARS data has been included in the 2016 SSP.

1.2.3 Online Employer Survey

An online employer survey was conducted in 2015/16. Through accessing employers directly, the FP&M SETA aims to strengthen its relationship with its stakeholders and to access valuable industry information regarding skills needs, and skills development trends from the different sub-sectors. It is also important to achieve a representative sample so as to ensure that the data from WSPs is supplemented by data from employers who may not have submitted plans and reports. A questionnaire was designed that asked pertinent questions on supply and demand, including some that are not posed through the WSP and ATR forms. The survey was administered online to over 5,000 sub-sector stakeholders. Through this survey, direct questions were asked to the various companies in the FP&M sector regarding scarce skills and the type of occupational training required. The focus of this year's online survey was primarily on the validation of scarce and critical across sub-sectors, as well as the PIVOTAL programmes needed to address these.

1.2.4 Focus Groups

FP&M SETA undertakes yearly focus groups in regions that have the largest concentration of companies in the sub-sectors concerned such as: Gauteng, KwaZulu-Natal, and the Western Cape. A focus group guide is used to facilitate the discussions, ensuring that these are effective. Participants usually receive the key research findings prior to the focus groups being held. Topics of discussion include: validating the scarce and critical skills identified in the research; identifying the necessary interventions needed to address skills needs; exploring difficulties experienced in relation to supply of such skills; highlighting challenges faced by stakeholders in working with the SETA in delivering relevant PIVOTAL programmes in each of the sub-sectors; and suggesting ideas for strengthening skills development. Through this process, valuable qualitative data is collected from industry which may then be triangulated with other data collected through the survey, in interviews and the WSP and ATR analysis. The ultimate outcome is the development of a SETA strategy that is firmly based on and enriched by real industry needs. One of the trends identified by the SETA has been a tendency for employers to send HRD practitioners to attend the focus groups. The SETA is making a concerted effort to attract more high level managers to these sessions, particularly those that are directly involved in production as well as the strategic thinkers in industry.

1.2.5 In-Depth Interviews

Interviews were conducted with key experts within sub-sectors that were not covered in the 2015 SSP. These were semi-structured interviews that allowed room for some deviation in the discussion where necessary. This approach is important as companies do not always ask their main experts to complete surveys and as mentioned, often sending HRD practitioners to engage in SETA processes. The aim is to ensure that the voice of "captains" of industry and manufacturing experts are engaged and their perspective captured in the SSP.

1.3 Conclusion

The methods of data collection discussed above provide a balance between quantitative and qualitative methodologies. There are many benefits and some limitations to each of the methods used. However, applying all of the above provides rich data that was analysed for accurate information in the 2016 SSP. The research team was able to reach out to all the FP&M SETA sub-sectors and undertake research that is representative of the sector as a whole. This is part of the reason for the elaborate list of data collection tools in an effort to reach all the 13 sub-sectors. There were few data challenges that emerged during the 2016 SSP research process. These included:

i. The most recent economic and labour market data from Quantec is 2015. StatsSA has not updated the Quantec data for 2016, and so the last available sub-sector data has been used.

ii. StatsSA does not break down data according the sub-sectors relevant to the FP&M sector. Some creative cleaning of data has been necessary to make the StatsSA data relevant to, and useful within, the sector.

iii. HEMIS data is always one year behind and therefore data reflected for enrolments and graduation in the higher education system reflects up to 2015 enrolments. Data for 2016 will only be available later in 2017.

The table that follows provides a summary of the various research projects that the FP&M SETA has conducted between 2014 and 2017 that have collectively informed this SSP. For each research project, the topic under discussion is provided followed by the nature and objectives of the study, the data collection tools adopted, data samples and data sources drawn on and, the timeframe of the associated project.

TOPIC	NATURE (DESIGN) OF THE STUDY	OBJECTIVES OF STUDY	DATA COLLECTION TOOL	SAMPLE SIZE AND SCOPE	LIST OF DATA SOURCES AND DATA SETS	TIME FRAME
Tracking and tracing impact assessment study	Quantitative and qualitative	The FP&M SETA commissioned a Tracking and Tracing study that would empirically examine the impact of Learnerships, Apprenticeships and Bursaries on learners, and determine the extent to which these programmes are achieving their objectives. This project served to understand, explore and document key features, trends, challenges and the impact of these three skills interventions in the different FP&M sub-sectors. This project was undertaken to assist in the further development of a sustainable skills development strategy for the FP&M SETA.	• Focus groups • Personal interviews • Telephone survey • In-depth interview	A final sample of 259 employers and 303 learners. The scope of this study is limited to students studying in the financial years of 2011/12, 2012/13 and 2013/14. A new study underway in 2017/18.	• Quantec data • SARS Database • FP&M SETA MIS (WSP and ATR) • FP&M SETA SQMR	2017/18
Social Return on Investment (SROI)	Quantitative	SROI is a form of social accounting which is used to analyse the impact of a policy, project or activity for the range of stakeholders involved in it. Developed from traditional cost-benefit analysis and social accounting, SROI is a participative approach that is able to capture in monetised form the value of a wide range of outcomes, whether these already have a financial value or not.	• **SROI methodology** asks whom is effected and involves these stakeholders in making decisions around the project outcomes and how to determine the value of those outcomes. • To calculate the social return, the value of the outcomes is compared to the monetary value of its inputs. • SROI puts a financial value on the impact of the projects that may not otherwise be valued and therefore may not feature in future decision making processes.	An evaluative SROI analysis for the financial years 2011/12 to 2013/14 the FP&M SETA as part of a Tracking and Tracing study to understand the impact of learnerships and apprenticeships funded by the SETA.	• FP&M SETA Commitments Register • FP&M SETA SQMR	2014/15
Voice of the Learner Report (an analysis of the impact of learnerships)	Qualitative Quantitative	The objectives of this project are to get an understanding of the status of the learnerships, find out if the learners have been employed, and understand the impact of learnerships on the learners.	• Telephone interviews • Two mini focus groups	303 learners Scope: All the learners who are listed on the Management Information System (MIS) database as having entered an learnerships during the period of 2011/2012 – 2013/2014".	• FP&M SETA Commitments Register • FP&M SETA SQMR	2014/15

TOPIC	NATURE (DESIGN) OF THE STUDY	OBJECTIVES OF STUDY	DATA COLLECTION TOOL	SAMPLE SIZE AND SCOPE	LIST OF DATA SOURCES AND DATA SETS	TIME FRAME
Tracking and tracing impact assessment study	Quantitative and qualitative	The FP&M SETA commissioned a Tracking and Tracing study that would empirically examine the impact of Learnerships, Apprenticeships and Bursaries on learners, and determine the extent to which these programmes are achieving their objectives. This project served to understand, explore and document key features, trends, challenges and the impact of these three skills interventions in the different FP&M sub-sectors. This project was undertaken to assist in the further development of a sustainable skills development strategy for the FP&M SETA.	• Focus groups • Personal interviews • Telephone survey • In-depth interview	A final sample of 259 employers and 303 learners. The scope of this study is limited to students studying in the financial years of 2011/12, 2012/13 and 2013/14. A new study is underway in 2017/18.	• Quantec data • SARS Database • FP&M SETA MIS (WSP and ATR) • FP&M SETA SQMR	2017/18
Voice of the Employer Report (an analysis of the impact of FP&M SETA interventions on Employer)	Qualitative Quantitative	The objectives of this project are to get an understanding of the impact of FP&M SETA interventions to the employers. This particular study covers the views of employers who are levy-paying companies in any one of the sub-sectors of the FP&M SETA.	• 10 In-depth interviews • 267 employers responded to the employer survey	Scope: All the apprentices whom are listed on the Management Information System (MIS) database as having entered an apprenticeship during the period of 2011/2012 – 2013/2014 A study focusing on the voice of employer is underway in 2017/18.	• FP&M SETA MIS (WSP and ATR) • FP&M SETA SQMR	2017/18
13 Sub-sector Reports (sector report on analysis of all 13 FP&M SETA)	Qualitative Quantitative	A profile of all 13 sub-sectors providing a brief overview of FP&M sectors. It covers the key trends and challenges, the drivers of change and the key role players in the sectors.	• Stats SA • SARS database • FP&M SETA MIS	13 FP&M SETA sub-sectors: clothing, footwear, forestry, furniture, general goods, leather, packaging, printing, print media, publishing, pulp and paper, textiles and wood products.	• FP&M SETA MIS (WSP and ATR) • FP&M SETA SQMR	2016/17
Stakeholder perception survey (annual)	Qualitative Quantitative	The goal of this research is to assess stakeholders' opinions of FP&M SETA's role and effectiveness in the skills development context. With the formal implementation of the Chief Executive Officer's New Business Model, it is good timing to evaluate its impact. The results from this survey will provide valuable baseline data and provide accurate measure of progress on service delivery.	• Survey Guide (convenient sampling and snowball technique) • Questionnaires (descriptive and inferential statistics)	Scope covered all 13 FP&M SETA sub-sectors and the sample 259.	• Survey monkey (online survey tool)	2015/16
International Leadership Development Programme (ILDP)	Qualitative	To develop high level strategic and innovative management leadership in order to expose learners to international benchmarks of the best practices towards improvement of institutional governance and management.	• Interview Guide	**26 students:** An invitation was extended to 13 FP&M SETA sub-sectors and 26 candidates from historically disadvantaged backgrounds were awarded the opportunity.	Primary data questionnaires	2015/16

TOPIC	NATURE (DESIGN) OF THE STUDY	OBJECTIVES OF STUDY	DATA COLLECTION TOOL	SAMPLE SIZE AND SCOPE	LIST OF DATA SOURCES AND DATA SETS	TIME FRAME
Investigation of LEAD SETA Project	Quantitative Qualitative and exploratory research	The purpose of the project is to undertake research on how best the partnerships between SETAs and TVET colleges can be strengthened if SETAs open offices at all public TVET colleges.	• Desktop research • Survey questionnaire • Site visits	21 SETAs Piloting at 9 selected target Colleges.	Data available at: DHET Colleges SETAs Desktop Research and other reports	2015/16
Annexure 2 (WSP and ATR) data analysis	Qualitative and quantitative	An analysis report to extract both quantitative and qualitative sector trends from WSP and ATR.	• WSP and ATR submissions	All participating FP&M SETA companies.	• FP&M SETA MIS	2017/18
Academic papers (international and national trends for FP&M SETA's key sectors)	Qualitative and quantitative	These papers are academic products from the 4 full-time students funded by the FP&M SETA. The synthesis of these papers feeds into the SSP.	Desktop research (extensive review of relevant literature).	N/A	N/A	2017/18
FP&M SETA Impact and Performance Report	Qualitative and quantitative	Conduct an assessment of the SETA programmes that were planned and implemented to improve the supply of people to the scarce skills occupations. Having established what the SETA intended to deliver, the purpose is to explore how successful the SETA was in delivering suitably qualified and competent people in priority scarce skills occupations. This will be a further step in the process of evaluating impact of FP&M SETA programmes, a process that has included tracer studies and will over the period 2016 and 2017 include impact evaluations of priority programmes.	• Desktop research • Interview guide	Scope: the report provides an overview of where the SETA committed its funds between 2013 and 2016, per sub-sector and learning intervention type.	• FP&M SETA Commitments register • SQMR • FP&M SETA MIS	2015/16

2. SECTOR PROFILE

2.1 Introduction

This chapter presents a profile of the Fibre Processing and Manufacturing (FP&M) sector. Notwithstanding that the sector is primarily a downstream industry, there is a significant presence of upstream processes. This therefore necessitates a value chain approach in profiling the sector. This is able to show how the various sub-sectors within the sector are linked, and also explores how sectors and entities external to FP&M, for example suppliers of specialised inputs and services, contribute to the development and sustainability of the FP&M sector.

2.2 Scope of coverage

The FP&M sector is made up of 77 industries in terms of the Standard Industrial Classification (SIC) framework as directed by the Minister of Higher Education and Training in Regulation 1056, 11 November 2010. The 77 SIC codes are listed below and have been clustered into 13 logical sub-sectors which make up the FP&M sector.

Table 1: FP&M SETA Standard Industrial Classification (SIC) Codes

SUB-SECTOR	SIC CODE	MAIN ACTIVITY DESCRIPTION
Clothing	31111	Preparatory activities in respect of animal fibres, including washing, combing and carding of wool.
	31120	Finishing of textiles.
	31210	Manufacture of made-up textile articles, except apparel.
	31214	Manufacture of made-up textiles articles and fibres except apparel.
	31220	Manufacture of carpets, rugs and mats.
	31291	Manufacture of textiles, clothing, leather goods and other textiles n.e.c.
	31292	Fashion clothing, textiles and footwear manufacture and design.
	31300	Manufacture of knitted and crocheted fabrics and articles.
	31400	Manufacture of wearing apparel, except fur apparel.
	31500	Dressing and dyeing of fur; manufacture of artificial fur; fur apparel and other art.
Dry Cleaning	99010	Washing And (Dry) Cleaning Of Textiles And Fur Products.
	99904	Washing And (Dry) Cleaning Of Textiles And Fur Products.
Footwear	31700	Manufacture of footwear.
	31701	Manufacture of footwear from material other than leather.

SUB-SECTOR	SIC CODE	MAIN ACTIVITY DESCRIPTION
Forestry	12102	Re-establishment.
	12104	Fire protection, fire suppression, fire prevention.
	12105	Forest conservation.
	12106	Forest protection.
	12107	Forest management.
	12108	Forestry and tree nurseries.
	12201	Harvesting.
	12202	Road construction and maintenance.
	12203	Transport (short haul and long haul).
	12204	Fire protection, fire suppression and fire prevention in forest, bush and velds.
	87144	Forest research.
Furniture	32291	Coffins (excluding the manufacture of coffins by funeral undertakers).
	39103	Manufacture of furniture made of materials other than metal, plastic or concrete.
	39105	Furnishing of ships.
	39106	Cane furniture.
	39107	Bedding.
	39110	Caravan furniture.
	39111	Curtaining where the core business of the enterprise is upholstery and furniture.
General Goods	12103	Maintenance.
	35591	Manufacture of metal containers, e.g. cans and tins.
Leather	31610	Tanning and dressing of leather.
	31620	Manufacture of luggage, handbags and the like, saddlery and harness.
Packaging	12101	Establishment.
	32322	Manufacture of containers of paper and paperboard.
	32323	Manufacture of packing material.
	88950	Packaging activities.

SUB-SECTOR	SIC CODE	MAIN ACTIVITY DESCRIPTION
Print media	32600	Reproduction of recorded media.
	36504	Graphic design, manufacture and display of laminated signs and advertising displays and other graphic media outputs and products.
	88993	Stenographic, duplicating, addressing, mailing list and similar activities.
	8899B	Stenographic, duplicating, addressing, mailing list and similar activities.
Printing	32391	Stationery.
	32392	Books and stationery.
	32393	Printing and embossing of stationery and labels.
	32510	Printing.
	32520	Service activities related to printing.
Publishing	32410	Publishing of books, brochures, musical books and other publications.
	32420	Publishing of newspapers, journals and periodicals.
	32430	Publishing of recorded media.
	32490	Other publishing.
Pulp and Paper	32310	Manufacture of pulp, paper and paperboard.
	32311	Manufacture of pulp, paper, paperboard, tissues and paper recycling.
	32320	Manufacture of corrugated paper and paperboard and of containers of paper and paperboard.
Textiles	31230	Manufacture of cordage, rope, twine and netting.
	31231	Curtaining excluding where the core business of an enterprise is upholstery or furniture.
	31290	Manufacture of other textiles n.e.c.
	39108	Curtaining.
Wood Products	32101	Saw-milling and preserving of timber.
	32102	Saw doctoring.
	32103	Wet milling.
	32104	Lumber drying.
	32105	Lumber grading.
	32106	Dry milling.

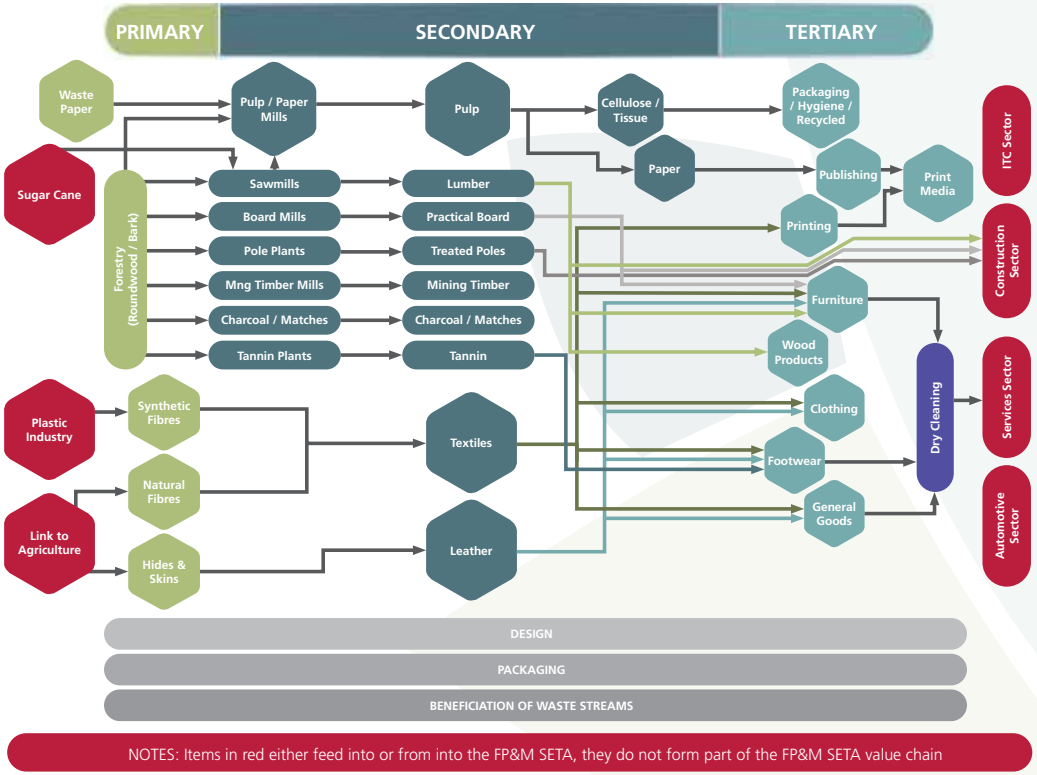
SUB-SECTOR	SIC CODE	MAIN ACTIVITY DESCRIPTION
Wood Products *(contd)*	32107	Finger jointing and laminating.
	32108	Mill maintenance.
	32110	Charcoal.
	32111	Wattle extracts manufacturing.
	32210	Manufacture of veneer sheets; manufacture of plywood, laminated board, and particle board and other panels and boards.
	32211	Fibreboard and chipboard products.
	32220	Manufacture of builders' carpentry and joinery.
	32221	Truss manufacturing.
	32293	Match manufacturing.
	32294	Pallets and bulk bins.
	32299	Other articles of wood, cork, straw and plaiting materials, including woodcarving and woodturning.

Source: Adaptation of Regulation 1056, 11 November 2010 FP&M key demographics

There are 13 sub-sectors that make up the FP&M sector: *Clothing; Footwear; Forestry; Furniture; General Goods; Leather; Packaging; Print Media; Printing; Publishing; Pulp and Paper; Textiles and Wood Products.* Secondary and tertiary industry activities form the bulk of the sector and are focused on turning raw materials into finished products and making these available for sale. The exception is the forestry sub-sector, which is in the primary sector.

The South African forestry value chain consists of three main areas, that is: plantation forestry; primary processing industry; and secondary processing industry. Primary processing includes saw milling, pulp and paper, treated and dried timber, chipboard manufacturing, floorboards and mouldings. Secondary processing consists of furniture, construction products like doors, windows. The value chain can further be broken into sub-sectors amongst which are forest plantations, saw milling, timber board, mining timber, treated poles, charcoal, and pulp and paper. Plantation forestry is the main supplier to processing industries and the main driver of growth to these industries (Mushangai, 2016). The FP&M sector has value chain linkages with other sectors based on the exchange and feeder relationships between primary and secondary production during manufacturing, and with the tertiary sector in the marketing and sale of produced goods. The value chain linkages are highlighted in Figure 1.

Figure 1: FP&M Sector Value Chain



Source: FP&M SETA Stakeholder Discussions

Some of the linkages highlighted in Figure 1 are explained below:

- The forestry sub-sector is the upstream feeder into the Milling and Wood Products industries, an upstream feeder into the Pulp, Wood Chips, Timber, Paper and Lumber (*an upstream to the Construction sector*). These have upstream linkages to the wholesale and retailing of Wooden Products, Furniture, Footwear, as well as Print Media, Publishing and Printing, in the tertiary sector.
- The plastic sub-sector *(which is not part of the FP&M industries)* is the upstream feeder to synthetic fibres. Synthetic and Natural fibres (*agriculture is an upstream feeder into Natural Fibres*) are an upstream feeder into Textiles, which is an upstream feeder into Printing, Furniture, Clothing, and Footwear.
- Agriculture (*which is not part of the FP&M industries*) is an upstream feeder of natural fibres hides and skins into the leather sub-sector. The leather sub-sector is an upstream feeder into Furniture, Clothing, and Footwear, which are upstream feeders into Dry Cleaning.
- General Goods are feeders into the automotive sub-sector.
- The Design and Packaging streams feed into the complete value chain from the primary to the tertiary phase, as a side stream flow, together with the beneficiation of waste.

The value chain linkages as outlined in Figure 1 extend to other sectors of the economy. The FP&M sector provides inputs into other sectors of the economy whilst relying on certain sectors for inputs:

- Most of what gets produced within the FP&M sector ends up in the ***wholesale and retail sector.***
- ***Manufacturing, Engineering and Related Services Sector*** plays a support role in the supply of machinery and equipment used in the production process and the servicing and repair thereof.
- There are some inputs from the ***chemicals sector*** that are utilised in the production process.
- Some of the goods produced in the FP&M sector e.g. wood products, are used in the ***construction sector***.
- Products such as packaging, produced in the FP&M sector, are utilised extensively in the ***food and beverages sector***.
- ***Transport sector*** plays a pivotal role in moving the goods produced in the FP&M sector to where they are required.

A value chain approach to profiling and analysing the sector exposes holistic and integrated opportunities for sector development. There are also points in the value chain that overlap with other sectors, where collaboration could result in the expansion of jobs and a greater level of labour absorption than is currently taking place. Opportunities for reskilling across the sub-sectors can also be identified, e.g. machine operators working in one sub-sector could move horizontally to another sub-sector within the sector.

2.3 Key role players

This section provides a glimpse into to some of the key role players within the FP&M SETA. The key role players within the FP&M sector include industry bodies, employer associations, government departments and institutions that provide policy direction or play a regulatory role, and includes trade unions, and suppliers (Table 2 and Table 3). Industry bodies and employer organisations are represented within the FP&M SETA, as per the SETA's constitution.

Table 2: Key Role Players in the FP&M sector: Government Departments

GOVERNMENT DEPARTMENT	DEFINITION
Department of Agriculture, Fisheries and Forestry (DAFF)	There is a strong linkage between agriculture and forestry and the FP&M sector. A lot of what gets manufactured in the FP&M sector would have been produced in the agricultural sector. The DAFF provides policy direction in Agriculture, Forestry and is an interested party in the development of the FP&M sector. Extension services are the responsibility of DAFF.
Department of Trade and Industry (DTI)	The FP&M sector contributes significantly to South Africa's manufacturing capacity. It plays an important role in the beneficiation of various fibre related raw materials. The Department as the custodian of the Industrial Policy Action Plan is responsible for the strategy and for creating an enabling environment for sector expansion.
Department of Rural Development and Land Reform	The Department is tasked with ensuring the development of rural communities in South Africa. The FP&M sector, particularly its primary produce sub-sectors has a strong presence in rural areas and is therefore integral to the national strategy for building sustainable rural economies.
Department of Small Business Development	The FP&M sector is largely made up of small businesses. The Department (alongside the DTI and DAFF) plays a role in the development of small businesses within the sector. It is important that the SETA skills development interventions in relation to small businesses, are aligned to the wider support framework.

GOVERNMENT DEPARTMENT	DEFINITION
Department of Environmental Affairs (DEA)	The Department as an interest in the preservation of the environment, managing and mitigating the impact of climate change and ensuring that environmentally sustainable methods of manufacturing are applied across the economy.
Department of Water Affairs and Sanitation (DWA)	The FP&M sector relies increasingly on water for manufacturing processes. The Department is the custodian of the country's water resources and provides policy direction in the preservation and use of fresh water resources.
Department of Science and Technology (DST)	The Department has agencies such as the Council for Scientific and Industrial Research (CSIR) and the National Research Foundation (NRF) whose purpose is to advance research in areas including those covered by the FP&M sector. It is important that the SETA maintains a focus on new developments and the skills required to support them.
Department of Energy (DoE)	Coordinates the exploration, development, processing, utilisation and management of South Africa's energy sources. Given the energy intensiveness of the FP&M sector and the country's recent challenges in power generation, the Department of Energy's (DoE's) policy setting and investment decisions in the energy sector to improve energy security through supply- and demand-side management has bearing on the sector's sustainability.
Department of Higher Education and Training (DHET)	The Department is the custodian of the Post School Education and Training system of the country and an important policy driver in the provision of skills and advancing research and development through universities.
South African Revenue Services (SARS)	The government agency is responsible for enforcement and inspection of imported goods at South Africa's customs points. As the local sector bleeds jobs because of cheap and illegal imports, the apparent lack of enforcement costs the fiscus at least R3 billion in unpaid import taxes per year.

Table 3: Key Role players in the FP&M sector: Per Sub Sector

KEY ROLE PLAYERS IN THE FP&M SECTOR: PER SUB-SECTOR		
SUB-SECTOR	**ORGANISATION**	**DESCRIPTION**
Clothing	Apparel Manufacturers of South Africa (AMSA)	Apparel Manufacturers of South Africa (AMSA), is a body representing five out of every six garment manufacturers in the country, and has sought intervention of Durban's labour court for compelling the National Bargaining Council for the Clothing Manufacturing Industry (NBC) to close about 400 companies that are not willing to comply with the minimum wage norms.
	SACTWU	Southern Africa Clothing and Textile Workers Union (SACTWU) is the biggest union in the clothing, textile and leather industry, with more than 100 000 members. It negotiates wages and conditions for the vast majority of workers in the clothing, textile and leather industry and views skills development for its members as an important objective.
	National Textile Bargaining Council (NTBC)	The bargaining councils consist of representatives from the major unions and employer groups within each of the sectors, their main purpose is to reach consensus on terms and conditions of their specific industries.

SUB-SECTOR	ORGANISATION	DESCRIPTION
Textiles	South African Cotton Textile Processing Employers' Association (SACTPEA) South African Carpet Manufacturing Employers' Association (SACMEA) National Manufactured Fibres Employers' Association (NMFEA) National Association of Worsted Textile Manufacturers (NAWTM)	The nine employer associations are parties to National Textile Bargaining Council (NTBC) and their main purpose is to reach agreement on Wages and Terms and Conditions of Employment in the various sub-sectors. The associations are registered with the Department of Labour as National Employer Organisations in terms of the Labour Relations Act.
	Narrow Fabric Manufacturers Association (MFMA) South African Wool and Mohair Processors' Employers' Organisation (SAWAMPEO) National Textile Manufacturers' Association (NTMA) South African Home Textiles Manufacturers Employers' Organisation (HOMETEX) South African Blankets Manufacturers Employers' Organisation (SABMEO)	SABMEO has contracted with the FP&M SETA to develop 26 Textile Operator Qualifications, 10 Handicraft Qualifications covering the CTFL Sectors and 29 Textile Trades on behalf of the Textile Industry. These projects also include the development of Assessment Strategies, Assessment Tools and Training Material. This initiative has the common interest of providing Occupational Qualifications for the development, growth and sustainability of the Textile Manufacturing Industry for the benefit of all Stakeholders.
Footwear	South African Footwear and Leather Industries Association	SAFLIA is formally registered with the Department of Labour as a national employer organisation in terms of the Labour Relations Act.
	National Footwear and Leather Cluster - Vaal University of Technology	The National Footwear and Leather Cluster is a not-for-profit company established by the Department of Trade and Industry within the administration of Vaal University of Technology. It seeks to promote and support the expansion of manufacturing in the sector.
	South African Footwear and Leather Export Council (SAFLEC)	SAFLEC facilitates the growth of exports of South African manufactured leather footwear, handbags, belts and other associated products thereby increasing the growth in the number of exporters.
Forestry	Forestry South Africa (FSA)	FSA is the largest forestry organisation representing growers of timber in South Africa. Membership includes all 11 corporate forestry companies active in the Industry, approximately 1,300 commercial timber farmers and some 20,000 emergent small scale growers etc.
	South African Forestry Contractors Association (SAFCA)	SAFCA offers assistance to all contractors regarding public liability and other insurance, forestry technical, business related assistance and training (capacity development).

SUB-SECTOR	ORGANISATION	DESCRIPTION
Forestry *(contd)*	Southern African Institute of Forestry (SAIF)	SAIF is a professional association of forestry related professionals geared towards delivering a professional service to forestry. Its mission is to achieve excellence in the practice of forestry, to promote growth and sustainability in the industry.
Paper and Pulp	The Paper Manufacturers Association of South Africa (PAMSA)	PAMSA promotes the renewability and recyclability of paper products both locally and in collaboration with industry associations around the world.
Furniture	Federation of Furniture Manufacturers' Association (FBUMA)	FBUMA serves as the collective entity of employers (businesses) in this Industry and is registered (in terms of the Labour Relations Act) as an Employers Organisation. FBUMA represents its members in collective bargaining with Unions at Industry level.
	Western Cape Furniture Initiative (WCFI)	The Western Cape Furniture Initiative was formally established in 2009 and plays a role in the furniture sector by building and marketing a South Africa Furniture Brand locally and internationally.
	South Africa Furniture Initiative (SAFI)	SAFI is a joint initiative of industry, labour and government and is formally constituted as a Non-Profit Company (NPC). The initiative has the common interest of providing the development, growth and transformation of the SA furniture manufacturing industry- for the benefit of all stakeholders.
Leather	Southern African Footwear and Leather Industries Association (SAFLIA)	See section on footwear.
Packaging	The Institute of Packaging South Africa (IPSA)	The Institute of Packaging South Africa (IPSA) was established in February 1970. One of its key objectives is to advance the standards and methods of education in the field of packaging and related subjects.
	The Packaging Council of South Africa (PACSA)	The Packaging Council of South Africa (PACSA) founded in 1984 is a voluntary industry body which aims to provide effective leadership and representation on major external and internal issues in the packaging sector.
Printing	Printing South Africa (PSA)	PSA represents the interests of printing, paper/flexible packaging and newspaper industries to be globally competitive and socially responsible. Its mission is to promote the sector's interests with government, sectoral bodies and any other relevant entity, in policy matters that affect the operations of its member organisations.
	Printing Employers Association of South Africa (PEASA)	An employer association looking after the interests of employers in the printing industry.
	South African Typographical Union (SATU)	The South African Typographical Union has traditionally organised workers in the Printing Newspaper and Packaging Industry but has extended its scope to include workers in Stationary Outlets, Book Shops, Publishing Houses, Advertising Agencies, Screen and Sign Display Sectors, Photocopy Shops, Printing Suppliers.
Print Media	Print and Digital Media South Africa (PDMSA)	PDMSA is dedicated to promoting a free and independent press through close interaction with members and by working together across print and digital media. It promotes and supports compliance with internationally recognised good governance practices and effective stakeholder management.

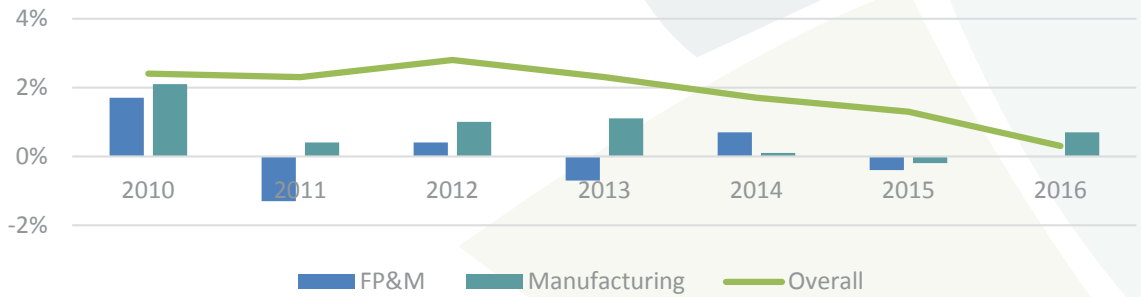
Source: Quantec, 2017

2.4 Economic Performance

2.4.1 Contribution to the Economy

The FP&M sector forms part of South Africa's manufacturing mix and is experiencing a similar growth trajectory – slightly less growth than that achieved in the economy as a whole. The South African economy moved into recession with the reported decrease of 0,7% in GDP during the first quarter of 2017, following a 0,3% contraction in the fourth quarter of 2016. It is the first recession since 2009 as both trade and manufacturing recorded negative growth rates. Similarly, the FP&M sector has experienced decline. Figure 2 shows that over a five-year period beginning 2010, the sector has not grown beyond 2% year on year.

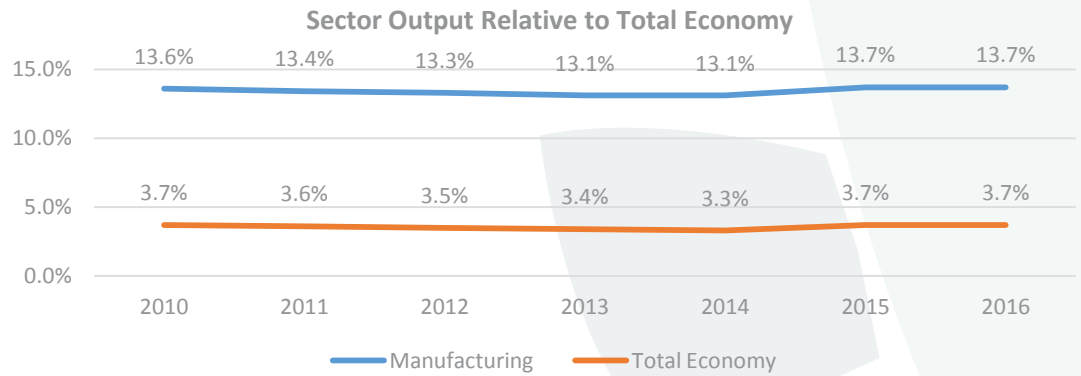
Figure 2: Year on Year Economic Growth



Source: Quantec, 2017

Since 2010, average growth has continued on a downward trajectory across the economy; despite some recovery in manufacturing. In the first quarter of 2017, both the secondary and tertiary sectors recorded negative growth rates. The trade and manufacturing industries were the major heavyweights that stifled production, with trade falling by 5,9% and manufacturing by 3,7%. In 2016, output in the FP&M sector comprised 13,7% of total manufacturing output (Figure 3). The FP&M sector's contribution to total output in the economy has remained relatively stable over the past five years, at an average of 3,6% year on year.

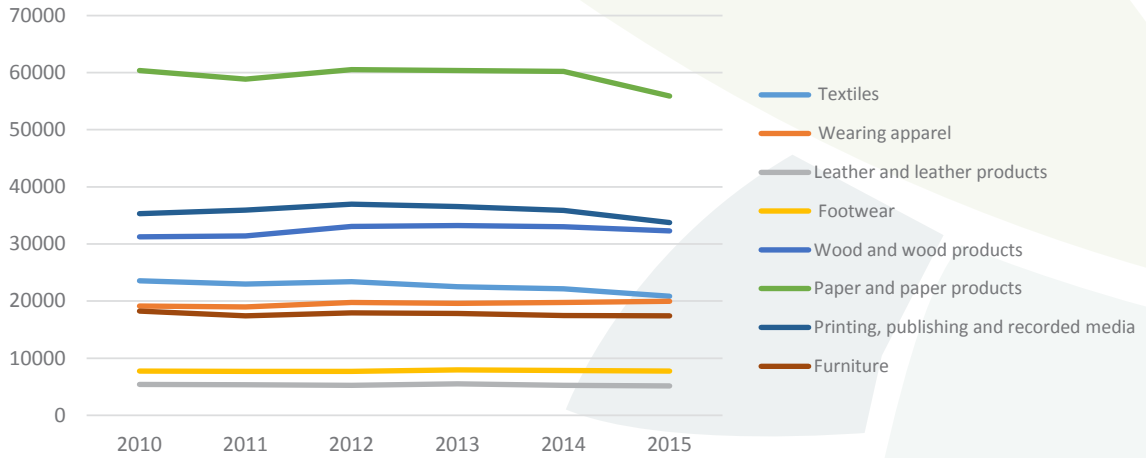
Figure 3: Sector contribution to the economy



Source: Quantec, 2017

Figure 4 illustrates each sub-sector's contribution to economic output in real terms. The highest contributor is paper and paper products, with a total contribution of R56 billion in 2015 - with pulp and paper alone contributing R4.5 billion. While the sector has largely experienced a decline, production in the leather, leather products and footwear sub-sectors has stagnated over the past five years and are the smallest contributors to total output in the sector, with just over R5 billion each in 2015.

Figure 4: Subsector Contribution to total output



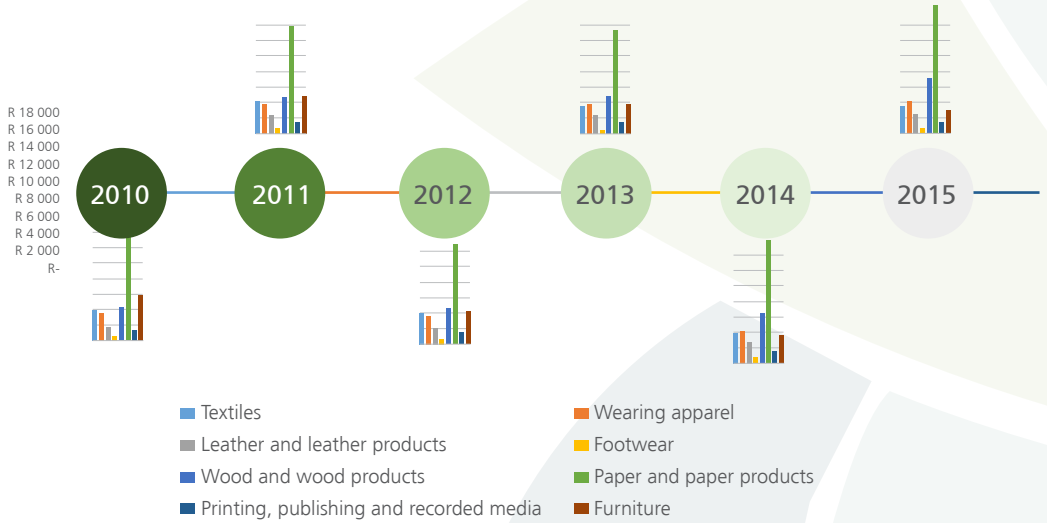
Source: Quantec, 2017

Trends indicate that packaging, tissue and chemical cellulose are growth sectors for South Africa, and demonstrate the work, energy and refocus of an industry that was under pressure, but is emerging with increased global competitiveness in its chosen grades. The local industry continues to drive cost control, and a renewed focus on exports is expected. South Africa and Lesotho lead the global export market with the trade of greasy/raw mohair. While this lead is noteworthy and contributes an estimated R2.7 billion annually in South Africa's GDP alone, it is merely an extractive practice of raw material commodities that yield little long term benefits (Mahlangu; 2016).

Following the 2008-2010 recession period, there has been some recovery in wood and wood products, leather and leather products, footwear and wearing apparel exports in recent years. The only sub-sector that had a significant "up-turn" in exports since 2012, is paper and paper products (see Figure 5). The largest contributor to exports in the sector is the paper and paper products industry, valued at nearly R28 billion in 2016. Pulp production is currently static in South Africa; however, the export value is up just over 6%, reflecting the influence of Forex rates.

The performance of this sector remains curtailed by the low demand in South Africa's main export markets in the developed world. Having not developed sufficient capabilities and capacity for the country's domestic production to compete in the international market, domestic production has been severely impacted resulting in many job losses particularly for firms producing for the bottom end of the market (Mahlangu; 2016).

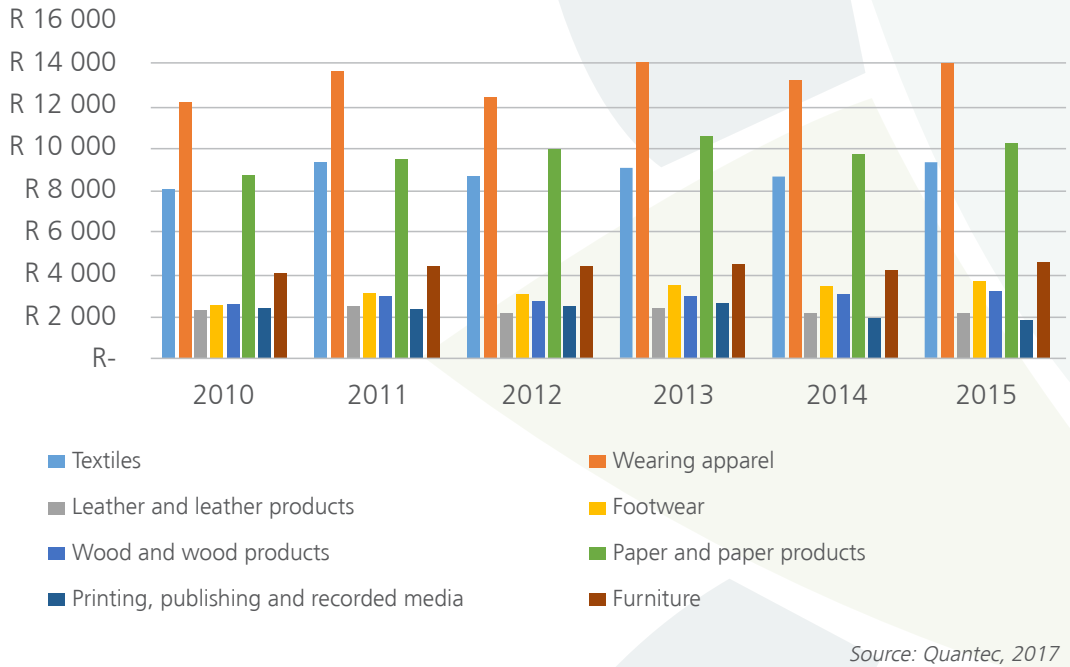
Figure 5: Sector Exports



Source: Quantec, 2017

While exports have declined, imports on the other hand, have increased across all sub-sectors, with the exception of the printing, publishing and recorded media subsectors over the five-year period beginning 2010. Over the same period Wearing apparel, Paper and Paper Products and Footwear sub-sectors have had the biggest increases in imports. Stakeholders in the footwear industry suggested that imports in footwear are much higher in reality as "approximately half of the footwear products claimed to be produced locally are in fact imported" (FP&M stakeholder interviews, 2016). Except for the Wearing Apparel and Textiles, the overall trend in the FP&M sector has been a stabilisation of imports over the past two to three years (Figure 6). The Printing, Publishing and Recorded Media subsector remains the smallest importer and at a declining scale; alluding the subsector's strengthening import substitution capacity. This could possibly mean the Printing, Publishing and Recorded Media sub-sector will experience localised growth that can lead to expanded employment opportunities (Ngcwangu, 2016). Total value of the total sector imports over the last five-year period has increased by 14% from R42,9 billion to R49,2 billion in 2015.

Figure 6: Sector Imports



Source: Quantec, 2017

2.5 Employer Profile

According to the FP&M SETA employer database there are currently 25,616 employers in the sector (Table 4). Based on the SARS levy file, about 20% of these contribute levies. The majority of employers are classified as small, meaning they employ less than 50 employees. Overall, the bulk of employers are located in the clothing and textile sub-sectors.

Table 4: Employers in the FP&M Sector

SUB-SECTOR	LARGE (150+)	MEDIUM (50-149)	SMALL (0-49)	SIZE UNALLOCATED	TOTAL
Clothing	151	229	3,610	3	3,993
Dry Cleaning	1	6	46		53
Footwear	50	51	685		786
Forestry	113	169	1,527	4	1,813
Furniture	46	85	1,821	5	1,957
General Goods	4	14	255		273
Leather	16	15	443	1	475
Packaging	61	70	670	2	803
Print Media	15	28	758		801
Printing	87	156	4,450	8	4,701
Publishing	29	45	1,850	2	1,926
Pulp and Paper	23	43	517	1	584
Textile	117	197	3,288	12	3,614
Wood Products	86	138	1,796	2	2,022
Size Unallocated	4	6	665	1,140	1,815
Total	**803**	**1,252**	**22,381**	**1,180**	**25,616**

Source: FPM SETA employer database, 2017

Most of the employers are based in Gauteng, although KwaZulu-Natal has the largest number of large employers, employing more than 150 employees (Table 5).

Table 5: National Distribution of FP&M Employers

PROVINCE	UNKNOWN	SMALL (0-49)	MEDIUM (50-149)	LARGE (150+)	TOTAL
Eastern Cape	79	1,543	68	46	1,736
Free State	19	684	45	14	762
Gauteng	438	8,334	284	188	9,244
KwaZulu-Natal	280	4,631	427	304	5,642
Limpopo	29	70	9	9	117
Mpumalanga	44	1,208	97	61	1,410
North West	24	275	6	5	310
Northern Cape	7	176	5	3	191
Western Cape	250	5,009	300	169	5,728
Unknown	10	451	11	4	476
TOTAL	**1,180**	**22,381**	**1,252**	**803**	**25,616**

Source: FPM SETA employer database, 2017

2.6 Labour Market Profile

The following section analyses sector employment including sub-sector trends and occupations. The analysis relied on both primary and secondary data sources; including WSP, StatsSA, and Quantec data sets.

2.6.1 Total Employment in the Sector

The FP&M sector employs approximately 332,000 people. This is 19% of the employed in the manufacturing sector and 2% of that in the total economy (Table 6). The FP&M sector experienced a 10% decline in employment between 2010 and 2015 and a total job loss of 33,965, dropping from a peak of 3% of total employment in 2010 to 2% in 2015.

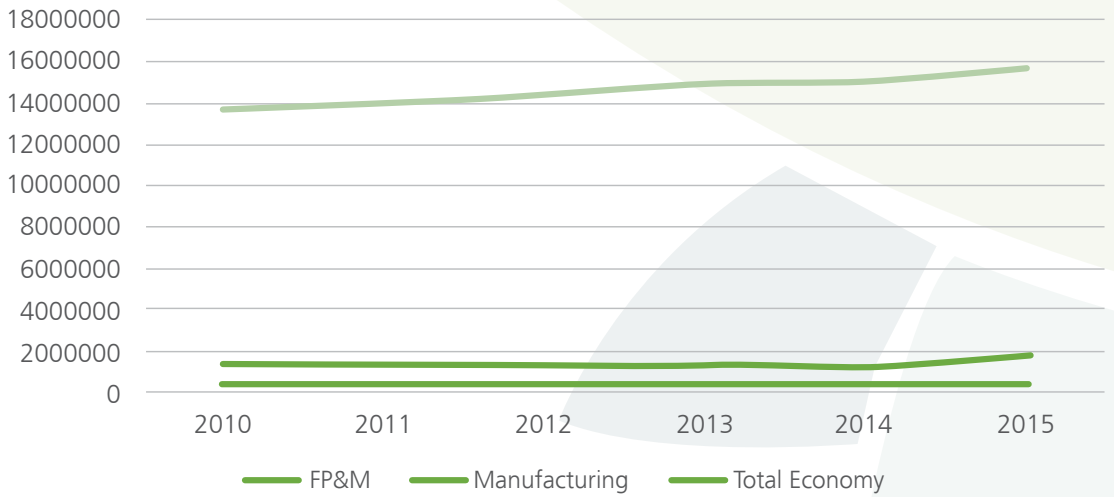
Table 6: Total Employment in the FP&M Sector as a Percentage of Total Employment in Manufacturing and the Economy

YEAR	FP&M	MANUFACTURING	TOTAL ECONOMY	FPM AS % OF MANUFACTURING	FPM AS % OF TOTAL ECONOMY
2010	366,159	1,402,148	13,782,871	26.1%	2.7%
2011	358,053	1,390,198	14,063,907	25.8%	2.5%
2012	339,859	1,351,616	14,419,969	25.1%	2.4%
2013	339,790	1,381,682	14,861,067	24.6%	2.3%
2014	329,487	1,349,262	15,140,918	24.4%	2.2%
2015	332,194	1,758,318	15,735,321	18.9%	2.1%

Source: Quantec, 2017

Over the past five years, total employment in the FP&M sector has seen a steady decline. Compared to the rest of the manufacturing sector and the economy as a whole, the FP&M sector has been shedding jobs at a higher rate. (See Figure 7 below). Although a slight recovery occurred in 2015 with an addition of 2,707 new jobs. This can be associated with the slight recovery of the manufacturing sector during this period with an additional 400,000 jobs.

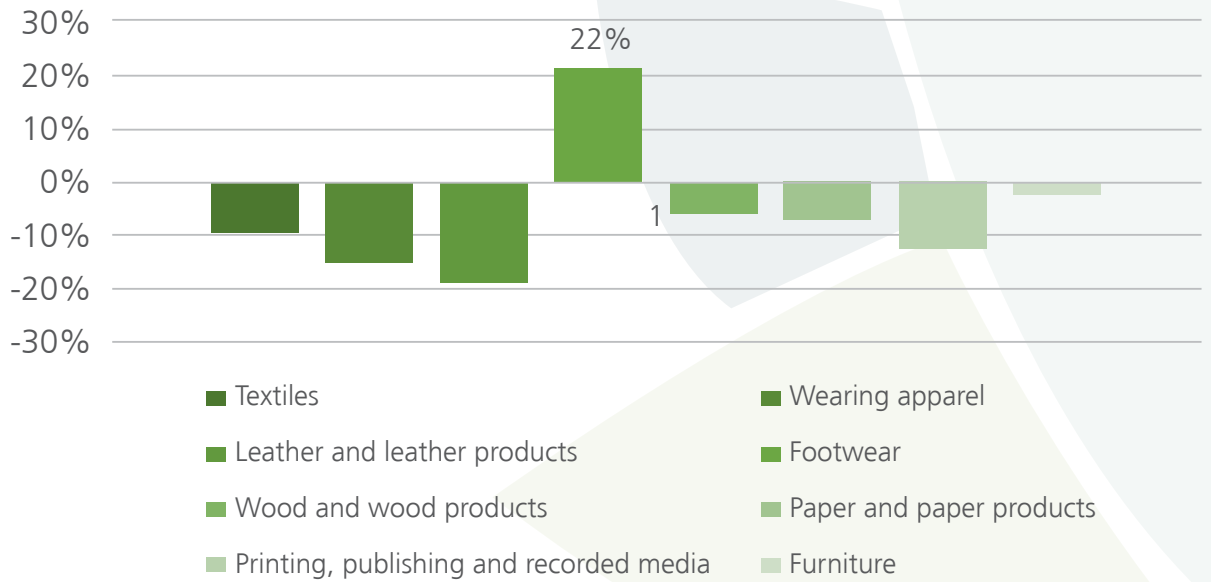
Figure 7: Sectoral Employment



Source: Quantec, 2017

The sector has generally been shedding jobs, with leather and leather products experiencing the largest proportion of job losses at 15% (Figure 8). During this period, with the exception of paper and pulp sub-sector and footwear, all other sub-sectors experienced some job losses (PAMSA, 2016). Over the years, where job losses were as a result of imported goods being cheaper than locally produced goods, this is likely to be reversed because of a weakened Rand.

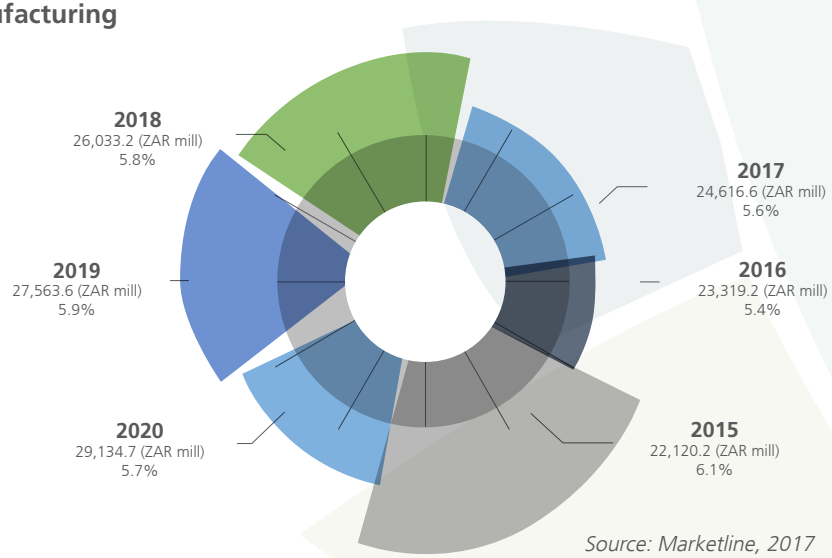
Figure 8: Employment by sub-sector



Source: Quantec, 2017

The table below, for example, shows forecasted growth in the market value of apparel and non-apparel manufacturing to 2020, with a compounded annual growth rate of the market for the period of 5.7%. This may be partly attributed to the anticipated move towards local production due to a depreciating currency and the rising cost of imports (Figure 9).

Figure 9: Growth in apparel and non-apparel manufacturing

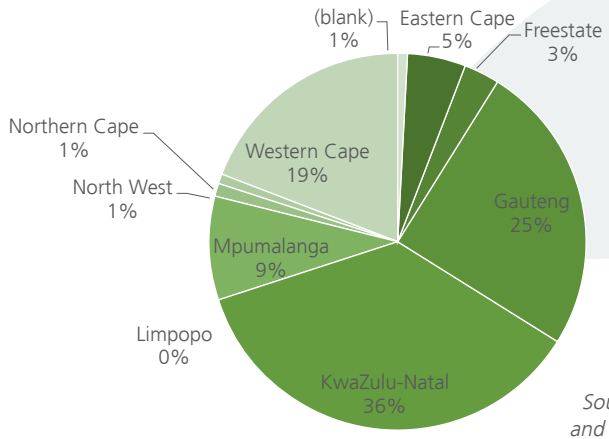


Source: Marketline, 2017

2.6.2 Employee Geographical Spread

The FP&M SETA database shows the total number of employees in the FP&M sector as 25,603. Of these, Figure 10 below shows that KwaZulu-Natal has the most employees at 36%, followed by Gauteng (25%) and Western Cape (19%).

Figure 10: Provincial Spread

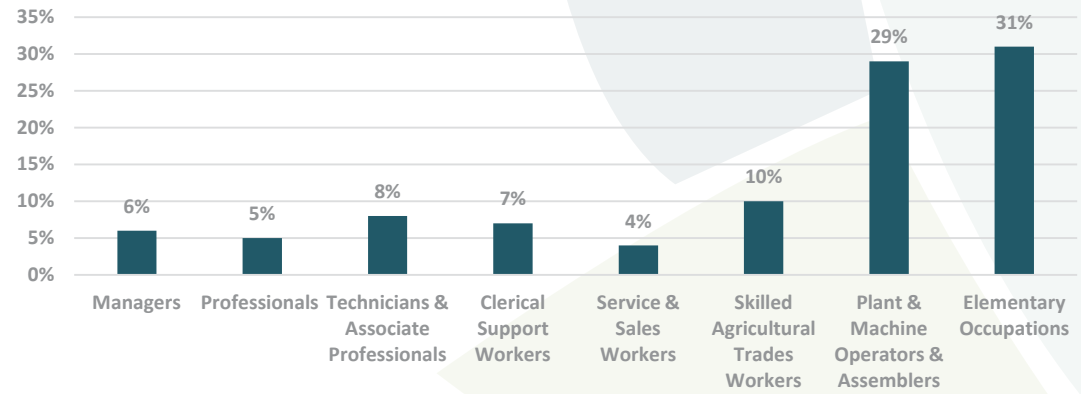


Source: FPM SETA WSP and ATR database, 2017

2.6.3 Employee Occupational Profile

The occupational profile of the FP&M sector is informed by the nature of business that the sector is involved in and therefore, the type of skills required in the production process. Based on an analysis of WSP submissions, Figure 11 depicts the highest proportion of the workforce employed in elementary occupations (31%), followed by Plant and Machine Operators and Assemblers (29%). These occupational groups account for 60% of the work force. Service and Sales Workers has the lowest representivity, accounting for 4% of the workforce whilst managers (6%) and professionals (5%), together account for 11% of the workforce. The occupational profile of the sector implies a requirement for a relatively higher proportion of lower level skills.

Figure 11: Occupational Profile

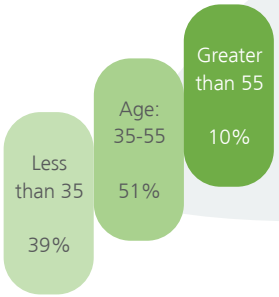


Source: FPM SETA WSP and ATR database, 2017

2.6.4 Employee Age Profile

Figure 12 shows that only 10% of the people employed in the sector are above the age of 55. The Clothing sub-sector has the highest proportion of people over the age of 55 at 28%. This is in line with concerns presented during stakeholder interviews of an aging workforce in the clothing industry.

Figure 12: Age profile of employees



Source: FPM SETA WSP and ATR database, 2017

Figure 13 and Figure 14 provides an estimated gender breakdown of employees, the majority of whom are Africans, who represent 62%. African males constitute 38% of the sector followed by African females at 24%. General Goods has a very high proportion of Africans (97%) followed by forestry (88%). The least proportion of Africans are in publishing (29.9%). Females represent 41% of employees in the sector and males 59%, with a high concentration of women in Clothing (70%).

Figure 13: Gender Breakdown

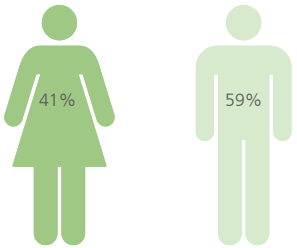
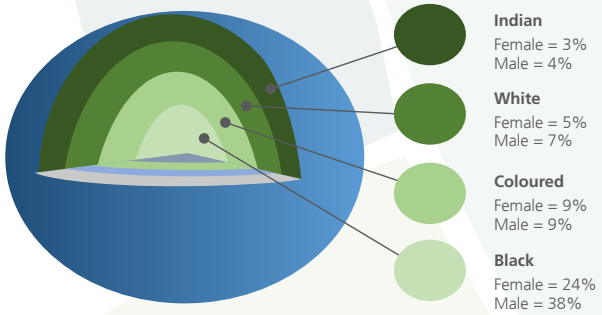


Figure 14: Racial Breakdown



In terms of disabled employees, the manufacturing sector makes provision for equal opportunity for disabled people. Based on analysis of WSP submissions by 795 employers in the sector, there are 3,070 people living with disabilities employed in the sector, reflecting 0.9% of total employment reported. 57% of the people with disabilities are African, 18% Coloured, 15% white and 10% Indian. The most people with disabilities are employed in the paper and pulp sub-sector (22%) followed by Clothing (19%).

2.7 Conclusion

Output in the FP&M sector recovered in 2010, in the aftermath of the 2008/9 recession, and in-line with the wider manufacturing sector and the economy as a whole. The highest contributor was the paper and paper products sub-sector, with a total contribution of R56 billion in 2015.

Exports followed a similar trajectory, declining substantially between 2004 and 2014. Since 2010, there has been some recovery in wood and wood products, leather and leather products, footwear and wearing apparel exports in recent years. This is also by far the largest contributor to exports in the sector, valued at R17 billion in 2015. Whilst exports have declined, imports have increased steadily in all sub-sectors since 2010; the Wearing apparel, Paper and Paper Products and Footwear sub-sectors have had the biggest increases in imports. Total value of the total sector imports over the last five-year period has increased by 14% from R42,9 billion to R49,2 billion in 2015.

There are currently 25,616 employers in the sector, the majority of whom are small, and employ less than 50 employees (FP&M Employer database, 2017). There are approximately 332,194 people employed in the FP&M sector. The FP&M sector experienced a 10% decline in employment between 2010 and 2015 and a total job loss of 33,965, dropping from a peak of 3% of total employment in 2010 to 2% in 2015.

With the exception of publishing and print media which have a higher proportion of highly skilled professionals, most of the sub-sectors employ Plant and machine operators and assemblers, elementary occupations, and clerical support workers, based on an analysis of WSPs in 2017. Due to import substitution capacity of the sector, there is a possibility for localised growth that can lead to expanded employment opportunities across occupational categories. An aging workforce in the clothing industry presents an opportunity for skills transfer to younger entrants.

3. KEY SKILLS ISSUES

3.1 Introduction

This chapter highlights the key drivers of change influencing skills demand and supply across the FP&M sector. In identifying the change drivers for the sector, the SETA engaged with both internal and external stakeholders. Internal stakeholders included sessions with senior management and the Accounting Authority, respectively. External stakeholder consultations included workshops with stakeholders across the country, comprised of industry, labour, training providers and government.

3.2 Change Drivers

3.2.1 Factors Impacting on Skills Demand and Supply

Technological Advancement and Innovation

Innovation results in change, and change almost invariably has a structural component. Regardless of their size, companies in the manufacturing industry face many of the same challenges – increased competition within their sector, evolving managerial and technical skills and workplace cultures, and a greater need to become more responsive to fast changing markets. To overcome these challenges, manufacturing companies must find effective solutions that allow them to proactively manage changes in their competitive landscape while keeping Research and Development (R&D) costs at a minimum. Productivity technology and public-sector policy on R&D investments have been and will continue to be major determinants of comparative advantage and competitive position.

Technological developments do not have a uniform effect on the demand for labour. On the one hand, the mechanisation and computerisation of processes may reduce the demand for labour. While at the same time, technological changes are the biggest drivers of demand for skills in the sub-sector and all levels of workers have to continuously upgrade their skills if they are to keep up with technological changes. The use of electronic media is increasing at a rapid rate and is expected to change the face of the printing and publishing sub-sectors locally and internationally. Paper products used for communication purposes, such as newspapers, are under threat from digital technologies and have dropped substantially over the past few years. Existing technology in large manufacturing companies in packaging, printing and print media, paper and pulp, textiles, clothing, for example, are designed to operate faster and more efficiently. Through the development of automation, robotics, and advanced manufacturing, the global manufacturing sector has bounced back along with the overall economy.

Emerging Markets

Globalisation, the movement of capital, products, services, ideas, and people across borders is accelerating. The pace and scale of the changes now taking place in the world economy are influenced by highly improved international transport and communications links, the liberalisation of trade and global political reforms. The process is reorienting the international division of labour and structure of both advanced and developing economies. Manufacturing functions are increasingly disaggregated with the emergence of global value chains, as evidenced by the growth in intra-sectoral trade and outsourcing.

As international production and, more recently, international consumption shift to developing and transition economies, manufacturers are investing in both efficiency and market-seeking projects in these countries. A targeted pan-African penetration strategy to further establish a footprint on the continent is needed to take advantage of the benefits of emerging markets and the shift on global investments.

Beneficiation

Beneficiation refers to upstream and downstream processes that add value to production; it involves the further processing of a resource beyond the stage where it represents a saleable raw material. The NDP, NGP and IPAP favour promoting beneficiation, particularly in relation to mineral and agricultural resources, the primary aim being to add value to unprocessed, exported goods and provide a competitive advantage to domestic industries.

Programmes such as the communal hides beneficiation programme and the establishment of an exotic leather cluster seek to promote local beneficiation by improving the production and processing of good quality hides and exporting of high-value, exotic leather goods including belts and handbags. Presently, over 90% of crocodile skins are being exported in raw form with limited value. Opportunities exist for forward integration of the local sawmilling sub-sector with the production of furniture components, low-cost housing components, doors, windows, window frames and similar building products.

As expressed in the NDP, beneficiation is not the panacea to job creation in South Africa as such processes are often expensive and rely on large supplies of energy (Presidency, 2011). A major advantage that is derived from beneficiation is increased employment. This applies particularly to the labour-intensive fourth stage, at which fabricated articles are produced. In addition to the advantages of the value added and new jobs created, fabrication provides much greater scope for product diversification, which facilitates the choice of products best-suited to penetrate export markets. There are developments which could catalyse the biofuels industry and will result in the registering of patents, which would allow the development of an economically viable liquid bio-fuels market.

Environmental Sustainability and the Green Economy

The Department of Environmental Affairs (DEA) defines the green economy as "a system of economic activities related to the production, distribution and consumption of goods and services that result in improved human well-being over the long term, while not exposing future generations to significant environmental risks or ecological scarcities" (UNEP, 2010). A green economy operates such that economic growth and development including employment creation follows a path in which carbon emissions are reduced, energy and resource efficiency is promoted and environmental degradation is lessened. South Africa is in a unique position to exploit the emergence of green economic development in the world. The country's renewable resources abundance and biodiversity positions it to play a leading role in the Southern African region and in Africa.

The Paper and Pulp industry generates at least 45% of its own electricity and steam using carbon neutral, renewable sources such as bark, black liquor and paper sludge (PAMSA, 2016). Energy constraints in South Africa will ultimately affect skills development through the demand for energy-related/technical skills such as boilermakers, turbine operators, and electrical engineers. The carbon tax legislation intended to be implemented by Government in mid-2017 is likely to impact on business operations and the need for environmental-type skills, including tree breeding scientists, climate change specialists and environmental research skills. Over and above technical skills training, there is a need for training in ethical matters pertaining to the protection of our environment and sustainability training. The need for producing environmentally sustainable products is indicative in a number of industries. In furniture, for example, there has been an emphasis on manufacturing 'credence goods' that are produced in environmentally friendly ways (Wits REAL research, 2016).

The Environmental Sector Skills Plan (ESSP) of 2010 maps out key environmental skills needs in the South African economy. Lack of alignment between NSDS and ESSP means that SETAs need support to integrate the environmental agenda into their education and training function (DEA, 2010). This requires cross-SETA collaboration and engagement with the DEA who have in place several environmental training programmes of their own.

3.2.2 Implications of these Factors for Skills Planning

The main implications for skills planning that may occur as the result of the change drivers identified above are described in Table 7.

Table 7: Implications of Change Drivers on Skills Development in the FP&M Sector

Outcome	Implications for Skills Planning
Technological Advancement and Innovation	• Mechanisation and computerisation may mean a reduction in the demand for lower level skills. • Higher-level skills are likely to be needed in niche areas. • Increased need for the upskilling of the existing labour force. • The need for industry-research partnerships with research institutions, science councils and universities of technology in areas identified for innovation. • Currently there is a lack of capacity locally to train employees on the use of new technologies and machinery, particularly where these are imported. This has necessitated a global outsourcing of such training in some instances. Eventually, funds should be mobilised and capacity developed for local training on imported equipment and machinery as well as skills developed for maintaining these in the future.
Emerging Markets	• Emerging markets have crucial implications for manufacturing firms, who need to consider their strategic importance from both a production location and as locations to target to gain new market share. From a skills perspective, it is important that there is a good understanding within enterprises of the changing nature of global markets and how it relates to their products and customer base. • Closure of production plants as a result, more companies are adopting human resource strategies that emphasise workforce skills development and implementing measures to ensure that mass redundancies do not affect communities too severely.
Beneficiation	• Specialised skills needed for processing raw materials. • Value chain linkages and dependencies will become evident within and across sub-sectors and sectors. • Skills development will be needed in support of new, niche industries and markets e.g. cashmere. Need to focus on future skills needs. • The need to integrate training as part of communal beneficiation programmes rolled out by Government e.g. communal hides beneficiation programme.
Environmental Sustainability and the Green Economy	• The need for skills development interventions targeted to support Green Industry initiatives. • The need for sustainability to be integrated and mainstreamed into education and training programmes for the sector. This may require better alignment between NSDS III, ESSP and SETA SSPs. • The need for high level knowledge (through research) and skills linked to developing and implementing green technologies. • Appropriate skills that are aligned to local and international standards of environmental awareness and impact need to be developed.

3.3 Alignment with National Strategies and Plans

The National Strategic Planning Framework emphasises the need for alignment between sectoral plans and national policy priorities. Aligning with the national strategy means that everyone is working towards the same goal (endorsed by the government), using similar activities, and avoiding duplication and parallel systems.

Table 8: National strategies and plans impacting on the FP&M sector

Strategy/Plan	Relevance
The National Development Plan (NDP)	• NDP is the overarching framework guiding economic development. A priority of the NDP is "improving the quality of education, skills development and innovation" (Presidency, 2011, 17). • There is a focus on support for small businesses (including co-operatives) through initiatives such as public and private incubators and on sustainability through better technologies, research and adaptation strategies. • This necessitates reskilling to accommodate technological advancements as well as building research and innovation skills across the system. A skills development platform that targets multiple areas of skills development across the value chain is required. If training can be provided as part of a wider package (including small business development and funding, incubators etc.) then the potential for impact is greater.
Human Resource Development Strategy of South Africa (HRDS-SA)	• The HRDS-SA is a national framework, within which all other HRD-oriented policies operate. Targets are set for priority areas identified in IPAP and the NDP. • For FP&M SETA, these include increasing the output of graduates with qualifications linked to skills demand in forestry, pulp and paper, and furniture industries in TVET, HE and SETA-facilitated training.
IPAP	• IPAP 2017/18-2019/20 identifies a series of domestic constraints that continue to inhibit industrialisation and the economic growth of South Africa; particularly within the manufacturing sector. • Key sectoral interventions are mapped out for clothing and textiles, leather and footwear, forestry, timber, paper, pulp and furniture sub-sectors. • In the Clothing and Textiles, the key opportunity is to recapture a bigger share of the domestic market by improving competitiveness. • Programmes to be introduced in the leather industry are communal hides beneficiation, innovation and technology and, the establishment of an exotic hides cluster and a communal hides commercialisation pilot. The latter is targeted at developing and upgrading the skills of emerging hide merchants. • More recently, IPAP 2017/18-2019/20 refers to the establishment of Centres of leather and Footwear Entrepreneurship at TVET colleges, within which the FP&M SETA will play an important role. • Action plans for forestry include the fast tracking of issuances of water licenses. Action plans for wood and wood products cater for productivity improvement and a sustainable supply of raw material. The Furniture Competiveness Programme and Furniture Cluster Development are targeted at furniture manufacturing (DTI, 2017). • The implementation of these sectoral interventions has skills development implications. In sawmilling, the plan is to assist small and medium-scale sawmills to improve their productivity through technology upgrading, market access, transfer of skills and securing long-term supply contracts. • The furniture design programme will support high-level design skills that will help address market failures, encourage specialisation and improve productivity (DTI, 2013).
White Paper on Post-School Education and Training	• The White Paper on Post-School Education and Training articulates that SETAs work with TVET colleges, employers and industry experts in the development of occupationally directed programmes that address real skills needs. • It promotes increased SETA engagement with employers as a means to incentivising and employers to create opportunities for more workplace learning and work-integrated learning. • In addition, the NSDS III identifies the need to train people for employment and empower them to earn a living, with a particular emphasis on small businesses and co-operatives.
New Growth Path (NGP)	• The NGP is aimed at enhancing growth, employment creation and equity, targeting 5 million jobs by 2020 (EDD, 2011). • Labour absorbing activities, clean manufacturing and environmental services are promoted. Clothing, Textiles, Leather and Footwear Sub-sectors are all potentially labour absorbing. The NGP emphasises strategies for growth supported by skills development.
The 18 Strategic Integrated Projects (SIPs)	• The 18 Strategic Integrated Projects (SIPs) currently rolled out by Government across the country, will boost economic and social infrastructure. • There is an opportunity for employers in the wood and paper and pulp sub-sectors to engage with skills development programmes aligned to the SIPS through the FP&M SETA. • FP&M SETA has an important role to play in supporting skills development linked to these strategies.

3.4 Conclusion

Chapter 3 provided a concise analysis of key drivers influencing change in the FP&M sector and associated skills development implications. Rapidly advancing technology and innovation has had a profound impact on certain FP&M sub-sectors. There are new technologies being developed in textiles and clothing, and new natural fibres are being explored. Increased mechanisation may reduce the demand for labour. At the same time, technological changes are the biggest drivers of demand for skills, as workers have to continuously upgrade their skills to keep up. As digitisation escalates, there is a growing need for professional IT personnel to assist with the transition. An expanded focus on beneficiation will add value to unprocessed goods, boosting our competitive edge in key markets such as exotic leather goods and cashmere products. Beneficiation necessitates skills development across value chains within and between sectors. Environmental sustainability through reductions in carbon emissions and waste and more efficient fuel consumption has become, and is likely to continue to be, a key driver of change in the sector. HIV and AIDS, like in other sectors, continue to threaten the health of workers and their productivity levels. Skills development initiatives must continue to factor in the development of health conscientious employees.

When drivers of change are considered alongside the employment trends set out in Chapter 1, it becomes clear that the potential for large scale expansion in employment is limited. It is also the case that many employed workers will need to adapt to such change. Although the SETA will seek to contribute substantially to the development of new entrants to scarce skills occupations in the sector, there is a strong case for there to be substantial training targeted at existing employees to enable them to adapt to change and to position themselves to be able to contribute to future skills needs in the sector.

4. OCCUPATIONAL SHORTAGES AND SKILLS GAPS

4.1 Introduction

Chapter 4 delves into the occupations that are hard to fill and skills gaps amongst employees in the FP&M sector and some of the reasons for this. Occupations that are hard to fill may be defined as a mismatch between the number of skilled people demanded by firms and the skilled people supplied in the labour market. The approach to occupations that are hard to fill and skills gaps in the sector involves literature study to review the industry dynamics. The literature study entails the analysis of both industrial policies and strategies formulated for the different sectors. Secondly, interviews and focus group discussions are conducted with stakeholder and experts within each sub-sector. An analysis is conducted using both Stats SA's Quarterly Labour Force Survey (QLFS) and the Quantec data. Finally, the findings of the literature survey, interviews and data analysis are presented to sub-sector representatives in workshops across three regions. Feedback is incorporated into the SSP.

4.2 Occupations that are hard to fill

There are some occupations that are hard to fill across multiple sub-sectors within the FP&M sector. For manufacturing companies in the clothing, textiles, pulp and paper, printing and packaging industries, these are generally mid-to-high level, technical occupations such as plant and machine operators, machine assemblers, machine mechanics, coded welders, technologists and technicians (FP&M SSP interviews, 2017). At the same time, there are elementary occupations in some sub-sectors that are also hard to fill. In clothing, for example, pattern makers, cutters and machinists are difficult to source particularly those that work in factories. The existing pool of pattern makers is aged, and a small scale of young people is attracted to the occupation. Likewise, in forestry, about 90% of the workforce in low skilled and in some cases, illiterate in occupations such as planters and basic firefighting. Labour turnover in the industry is high and this increases demand for short courses and skills programme type training as this turnover creates a constant flow of new recruits that require training (FP&M SSP interviews, 2017). Industries in print media and publishing sub-sectors experience difficulties in filling high-level, professional occupations including editing, digital publishing, translator and design (FP&M Employer survey, 2015).

Other reasons for the occupations that are hard to fill across the FP&M sector include:

- Low wages in the sector rendering some occupations less attractive to young people;
- Technological improvement in the sector requiring a new skills set;
- Industry trends creating new pressures for employers in the sector to operate differently;
- Lack of immediate skills to replace an ageing and experienced workforce;
- Need for multi-skilled people to perform functions that were previously filled by people without multiple skills; and
- Graduates lacking the requisite basic skills to function.

In certain cases, occupations are not hard to fill, but there is high turnover of employees because the jobs are used as a stepping-stone into other more lucrative jobs. In other words, people only hold on to the jobs because they have no options. High turnover exists from manufacturing into retail where the latter is considered more lucrative (SSP interviews, 2017). The occupational profile of the sector implies a requirement for lower level skills to ensure competitiveness of the people employed. The increased investment in technology by employers in the sector is likely to have a negative bearing on the demand for low level skill and a move towards intermediate skills.

Hard-to-fill vacancies refer to occupations in which there is a shortage of qualified and experienced people, due to unavailability of such people or because these people do not meet the given employment criteria. Scarcity can be absolute or relative. Scarcity may arise due to absolute scarcity in which few people hold the necessary skills or qualifications (such as those required in a new or emerging occupation). These skills are either impossible to replace, or are extremely difficult to replace should they exit the sector. Absolute scarcity results in low growth and productivity of companies in the sector and the sector itself. Relative scarcity of skills pertains to skills that are difficult to attain due to geographic location, equity requirements or the lead-time on attaining the necessary skills. Table 9 outlines the scarce skills occupations across the sector.

The methodology used to derive at the top 10 hard-to-fill vacancies outlined in below was mixed methods both quantitative and qualitative data collections methods were thus used. Data was first sourced from last year's SSP and through the online employer survey. This data was then verified and updated during stakeholder interviews and focus groups.

Table 9: Hard to fill vacancies in the FP&M sector

YEAR	FP&M	MANUFACTURING	TOTAL ECONOMY
2015-132102	**Production/Operations Manager (Manufacturing)**	320	Industry trends.
2015-821501	**Forestry Worker**	80	Low wages in the sector. Lack of immediate skills to replace an ageing and experienced workforce.
2015-662202	**Printing Machinist**	75	Low wages in the sector. Lack of immediate skills to replace an ageing and experienced workforce.
2015-216603	**Multimedia Designer**	90	Technological improvement.
2015-214101	**Industrial Engineer**	20	Technological improvement.
2015-683202	**Patternmaker**	20	Lack of immediate skills to replace an ageing and experienced workforce.
2015-312201	**Production/Operations Supervisor (Manufacturing)**	600	Industry trends creating new pressures.
2015-313201	**Industrial Machinery Mechanic**	40	Technological improvement.
2015-832909	**Textile, Clothing and Footwear Factory Worker**	350	Low wages in the sector. Lack of immediate skills to replace an ageing and experienced workforce.
2015-682303	**Wood Machinist**	50	Lack of immediate skills to replace an ageing and experienced workforce.

4.2.1 Skills Gaps in the Sector

Skills gaps refer to areas within an occupation where a worker is not fully competent to perform a particular task. These can include cognitive skills, such as problem solving, language and literacy skills. These "top-up" skills can be specific to a particular occupation resulting in skills gaps, which might arise because of phenomena such as improved technologies or new forms of work organisation.

All FP&M SETA sub-sectors report investments in new technology, and training new staff to use such technology is therefore a key critical skills driver for the sector. Similarly, managers are required to lead the sub-sector in new business directions, to achieve the required industrial restructuring. Managers are therefore also an important focus for critical skills development. Many sub-sectors are competing in a global arena currently, and improved labour productivity is becoming an increasing priority. This too is a major critical skills driver. Table 10 lists the prevalent skills gaps that exist across all the major groups in the FP&M sector.

Table 10: Skills gaps in the FP&M sector

Major Group	Skills Gap
Managers	Operations Management Supervisory/Team Leadership Production Planning Coaching/Mentoring
Professionals	Technology-related expertise Production Planning Coaching/Mentoring Project Management
Technicians and Associate Professionals	Design and Innovation Problem Solving (Estimating) Project Management
Clerical Support Workers	Information Technology expertise
Service and Sales Workers	Information Technology expertise Sales and marketing
Skilled Agricultural, Forestry, Fishery, Craft and Related Trades Workers	Technical skills Technology-related expertise
Plant and Machine Operators and Assemblers	Technical skills Technology-related expertise
Elementary Occupations	Technical skills Technology-related expertise

One of the biggest challenges with regards to skills gaps is the increased utilisation of latest technologies in the sector. Often new machinery requires technicians to be retrained in countries like Germany or Sweden where such machines are produced. That means technology related expertise is a major skills gap. Moreover, where local expertise exists for servicing or repair of machinery, often this is limited to major cities and towns leaving the small towns where industry is located not having qualified technicians capable of working on the new machines.

There are people in the sector who are losing jobs due to the introduction of new technologies. That also creates a requirement for retraining staff to use the new technology and retooling others to be redeployed elsewhere.

4.3 Extent and Nature of Supply in the FP&M sector

Both public and private universities and colleges supply education and training in the FP&M sector. Higher-level skills such as engineers are predominantly trained at public universities and universities of technology. Degree and Diploma graduates include chemical, design, process, mechanical and electrical engineers as well as engineering technologists and technicians. HEIs also supply high-level management skills in Human Resources, Operations, Finance, Accounting and IT. Public, TVET colleges provide low to mid-level skills through the old Nated programmes and more recent occupational qualifications and to a lesser extent, through vocational programmes such as the NCV. The use of public TVET colleges in the FP&M sector has been limited to a few sub-sectors (clothing and textiles in the Western Cape and KZN) using a few, more functional TVET colleges. This has been largely due to resource and capacity constraints of TVETs and their poor reputation amongst industry. The bulk of large manufacturers have opted for private colleges as the chosen type of provision both on and off-site (FP&M SSP Focus Groups, 2015).

There is also a substantial amount of unaccredited training taking place in-house, on the factory floors of manufacturers of clothing and textiles, wood products, printing, paper and pulp, and leather goods. Existing employees and supervisors, using heavy machinery used in production processes, often carry out training on-site. Focus group interviews with employers in these sectors generated a number of key benefits associated with such training. For example, it was felt that such training is beneficial in its flexibility to train, based on real and changing needs. It did not require employees to leave the factory site and trainees could be trained on the machinery and equipment used in production. On-site training also created exposure to the realities of manufacturing and what it entailed to work on the factory floor (FP&M SSP Focus Groups, 2016).

In the White Paper on PSET it states that, "private institutions play a significant role in providing post-school education to South Africans" (DHET, 2013). SAQA data suggests that between 1991 and 2010, 537,362 students obtained qualifications from private, post-school institutions. The private sector has been able to fill the gap in mid-level skills in the economy that the public sector could not fill. The growth of the public TVET sector has been a nationally driven agenda. Emphasis has been placed on expanding the size and quality of TVET colleges through better resource provisioning, infrastructure investment, lecturer capacity building and improved qualifications that are occupationally based. As such, "the government's main thrust, therefore, should be to direct public resources primarily to meeting national priorities and to provide for the masses of young people and adult learners through public institutions" (DHET, 2013).

4.3.1 FP&M SETA funded programmes

SETA-funded learnerships, apprenticeships, skills programmes and bursaries are an important vehicle in the supply of education and training in the FP&M sector. These are presented in Table 11 below. The most popular course offered by FP&M SETA is the National Certificate: Clothing, Textiles, Footwear and Leather Manufacturing Process, followed by two national certificates in furniture making (SAQA ID 49,091 at 12% and 49,105 at 7%). Some courses, such as Knitting Machine Mechanician and the Technical Dyer-Finisher have only one student listed on the MIS system.

Table 11: FP&M SETA learner enrolment per course

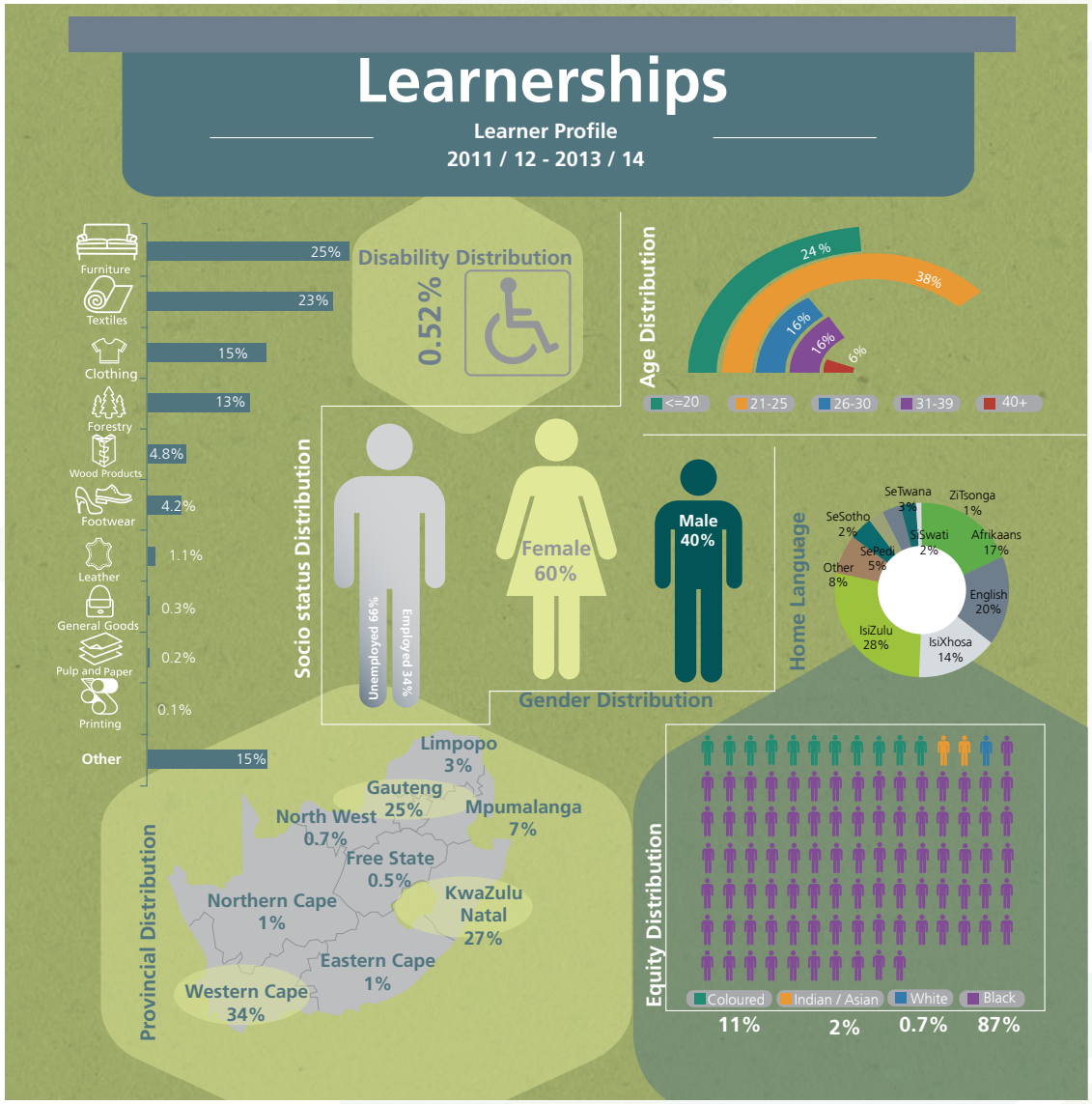
SAQA ID	SAQA Qualification	Number of learners enrolled	Percentage enrolment (%)
58227	National Certificate: Clothing, Textile, Footwear and Leather Manufacturing Processes	2,665	42.94%
49091	National Certificate: Furniture Making: Wood	747	12.03%
49105	National Certificate: Furniture Making: Wood	442	7.12%
50584	General Education and Training Certificate: Clothing Manufacturing Processes	246	3.96%
49082	General Education and Training Certificate: Wood Products Processing	222	3.58%
11263	National Craft Diploma: Lithography (Paper Section)	216	3.48%
11271	National Craft Diploma: Rotary Offset Machine Minding	170	2.74%
50225	General Education and Training Certificate: General Forestry	169	2.72%
21489	National Certificate: Lumber Drying	168	2.71%
11243	National Craft Diploma: Electronic Origination	123	1.98%
11285	National Craft Certificate: Rotary Printing and Re-Reeling - Flexography	108	1.74%
66312	National Certificate: Lumber Milling	85	1.37%
11269	National Craft Diploma: Roll Label Machine Minding	75	1.21%
11313	National Craft Diploma: Bookbinding Mechanised/Cutting	73	1.18%
66269	General Education and Training Certificate: Lumber Milling	71	1.14%
11281	National Craft Diploma: Carton Making	68	1.10%
21493	National Certificate: Dry Lumber Processing	68	1.10%
11295	National Craft Certificate: Corrugated Board Printing and Finishing Machine Minding	61	0.98%
11291	National Craft Certificate: Corrugated Board Manufacturing Machine Minding	41	0.66%
11317	National Craft Certificate: Printers' Mechanic	34	0.55%
21494	National Certificate: Dry Lumber Processing	32	0.52%
50266	National Certificate: Forestry: Silviculture	32	0.52%
11301	National Craft Certificate: End Making	26	0.42%
11323	National Craft Certificate: Printers' Electrician	25	0.40%

SAQA ID	SAQA Qualification	Number of learners enrolled	Percentage enrolment (%)
11353	National Craft Diploma: Gravure Machine Minding	24	0.39%
11297	National Craft Diploma: Can Making	23	0.37%
11319	National Craft Certificate: Stationery and Envelope Machine Adjuster	23	0.37%
11347	National Craft Diploma: Continuous Stationery Machine Minding	23	0.37%
49083	National Certificate: Wood Products Processing: Wood Preservation	21	0.34%
11265	National Craft Diploma: Lithography (Metal Decorating)	18	0.29%
11277	National Craft Diploma: Bag Making	17	0.27%
11235	National Craft Diploma: Photo-gravure Cylinder Processing	14	0.23%
49079	National Certificate: Pulp and Paper Technology	11	0.18%
11287	National Craft Certificate: Rotary Printing and Re-Reeling – Gravure	10	0.16%
11309	National Craft Certificate: Bookbinding Craft/Cutting	8	0.13%
66329	National Certificate: Lumber Milling	8	0.13%
48988	National Certificate: Forestry: Timber Harvesting	7	0.11%
11275	National Craft Certificate: Screen Printing	6	0.10%
61104	Weaving Machine Mechanician - Rapier Loom	6	0.10%
58913	Lithography (Metal Decorating) Dry Litho Monoblock	5	0.08%
11315	National Craft Diploma: Ruling/Cutting	3	0.05%
60833	Upholsterer	3	0.05%
11305	National Craft Certificate: Paper Sack Making	2	0.03%
21486	National Certificate: Saw Doctoring	2	0.03%
65651	National Certificate: Sewing Machine Mechanics	2	0.03%
21485	National Certificate: Saw Doctoring	1	0.02%
61100	Knitting Machine Mechanician (Weft)	1	0.02%
61129	Technical Dyer-Finisher	1	0.02%
61132	Weaving Preparation-Technical Controller	1	0.02%
	Total	**6,207**	**100%**

4.3.1.1 Learner Profile

In 2014, the FP&M SETA conducted a detailed tracer study on learners accessing their learnerships and apprenticeships. Figure 15 illustrates the results of this tracer study for learnerships, the profile of students enrolling for learnerships shows that students are mostly black South Africans under the age of 25. The gender ratio is 60:40 female to male, with most students completing their learnerships in Gauteng, KwaZulu-Natal or the Western Cape. Over 80% of learners on learnerships are studying towards national certificates applicable to the clothing, textiles, furniture and forestry sub-sectors. The percentage of unemployed learners on learnerships is 66%. Apprentices tend to be older and skewed towards males with a ratio of 12:88 women to men. Apprentices are more likely to be employed at the time of enrolment than learnership students (55% employed).

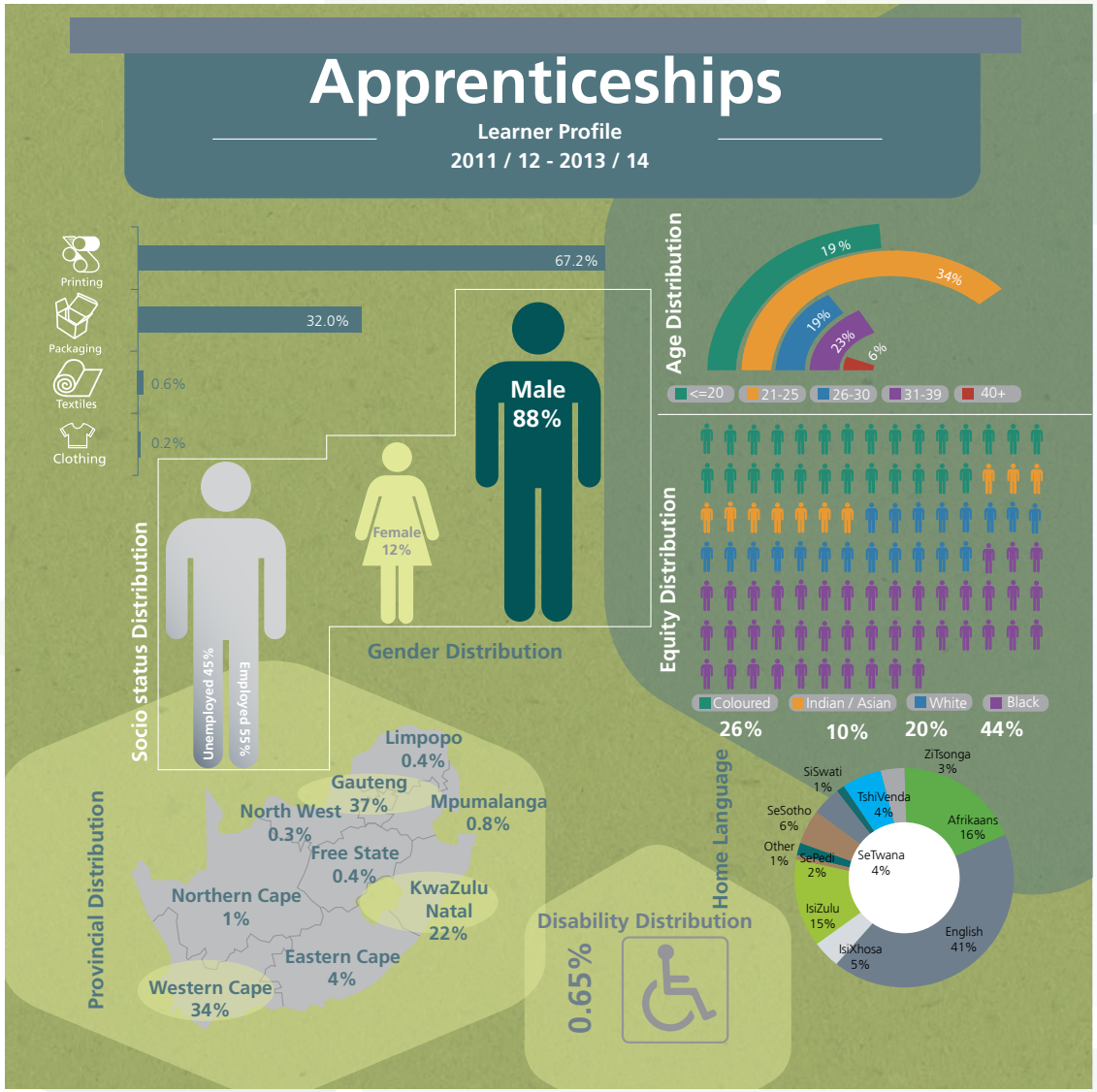
Figure 15: Learnership profile



FP&M Employer Tracer Study, 2014

Figure 16 illustrates results emerging from the tracer study for learners enrolled on SETA apprenticeships. The majority of apprenticeships are conducted in the Printing and Packing sub-sectors, with very few in Textiles and Clothing. Apprenticeships take place mostly in Gauteng, followed by the Western Cape, KwaZulu-Natal and Eastern Cape. Apprentices are usually older than learnership students. The split between employed and unemployed learners in apprenticeships is relatively equal. Apprenticeship learners are mostly black South Africans, making up 46% of the total portion of learners. Other race groups are more likely to take part in apprenticeships than they are to study learnerships.

Figure 16: Apprenticeship profile



FP&M Employer Tracer Study, 2014

Bursary students are mostly black, female South Africans between the ages of 21 and 25, living in the Western Cape or Gauteng.

4.3.1.2 Completion rates

During the tracer study conducted in 2014, there were difficulties experienced in collecting data on completion rates for both learnerships and apprenticeships. Despite such challenges, existing MIS data collected from the years 2010 to 2013 and data that emerged through the learner survey as part of the tracer study suggests that the completion rate ranges between 68% and 80% for learnerships. Completion rates for apprenticeships are at 30% as indicated in the MIS data. The tracer study survey conducted with apprentices suggests a higher completion rate of 66%. In other words, the rate of completion ranges from 30% to 66%. Overall, completion rates are substantially higher for learnerships than apprenticeships.

4.3.1.3 Alignment of skills to employer needs

The 2014 FP&M Tracer Study indicates the percentage of employers surveyed who do not offer any of the relevant training initiatives, as well as the main reasons claimed for failing to offer such training. Paper and Pulp, Printing, Print Media, Packaging, Publishing and General Goods' employers cited a lack of relevant training as the main reason for not offering training. Whilst some employers may be unaware of available training options and how to access these, there are gaps in the provision of SETA-funded training courses in Publishing, Print Media and Leather. In addition, the type of training provided via learnerships and apprenticeships may not be suitable for many employers. The need for highly specialised skills in digital publishing, for example, cannot be appropriately addressed through an apprenticeship or learnership. This may require specialised skills programmes that address a specialised set of needs. In the same vain, the majority of employers in labour-intensive industries such as clothing and forestry emphasised the need for low-level skills through short-term, on-site skills programmes. Here, a large number of increasingly mobile workers are employed (with workers moving between sub-sectors), not suited to longer-term training. The overall plea by employers was to go back to basic-level training as the sustainability of their industry depended on it (FP&M SSP interviews, 2015).

A valuable assessment made by clothing manufacturers interviewed was that learnerships do not provide the skills-set needed for working on a production line in the factory. A machinist sewing the odd garment requires a different set of sills to a machinist sewing for a production line (FP&M SSP interviews, 2015).

Figure 17 provides a summary of the relevancy of training offered to different sub-sectors by summarising the number of learners per sub-sector the number of courses offered and the percentage contribution of each sub-sector to levies. There are sub-sector discrepancies emerging. The Publishing sub-sector contributes 10% of SETA levy income yet is not serviced in terms of SETA-funded training programmes. The furniture sub-sector contributes 9% of levy income generated yet has access to five learnerships that are described as relevant to their skills needs.

Figure 17: Summary relevance of training to FP&M subsectors

FP&M Employer Tracer Study, 2014

4.3.1.4 Learner employability and wages post training

The impact of skills interventions such as learnerships and apprenticeships on learners may be measured according to the employability of these learners and their wage increase post the intervention. There is a positive correlation between the percentage of learners who complete a learnership or apprenticeship and their employability. For example, in Table 12, the number of learners employed in clothing doubled to 70% after completion of the learnership (FP&M Employer Tracer study, 2014).

Table 12: Employment increase by sector (based on those who completed a learnership)

	Clothing	Forestry	Furniture	Textiles	Wood Products
Currently employed	70%	44%	26%	61%	31%
Employed at the start	35%	42%	10%	37%	7%
% Employment increase	35%	2%	16%	24%	24%

FP&M Employer Tracer Study, 2014

The FP&M Employer survey (2014) revealed similar correlations between the level of training that a learner has and their salary. The average salaries for trained learners differ across the sub-sectors, with some higher or lower than others. The salary of a trained learner is, however, always higher than the minimum wage. For example, in Forestry, the minimum wage is around R2,420 per month, and a trained learner earns nearly double this (on average about R4,000 per month). Income is also dependent on job role, with machinery operators and drivers earning on average R5,128 per month, and clerical and admin workers earning similarly at R5,275. Labourers earn less, with an average salary of R3,686.

After completing the apprenticeship, employed individuals earn on average R9,810 per month. This is more than double the R4,345 that they earned on average per month prior to obtaining the formal apprenticeship qualification (FP&M Employer Survey, 2014)

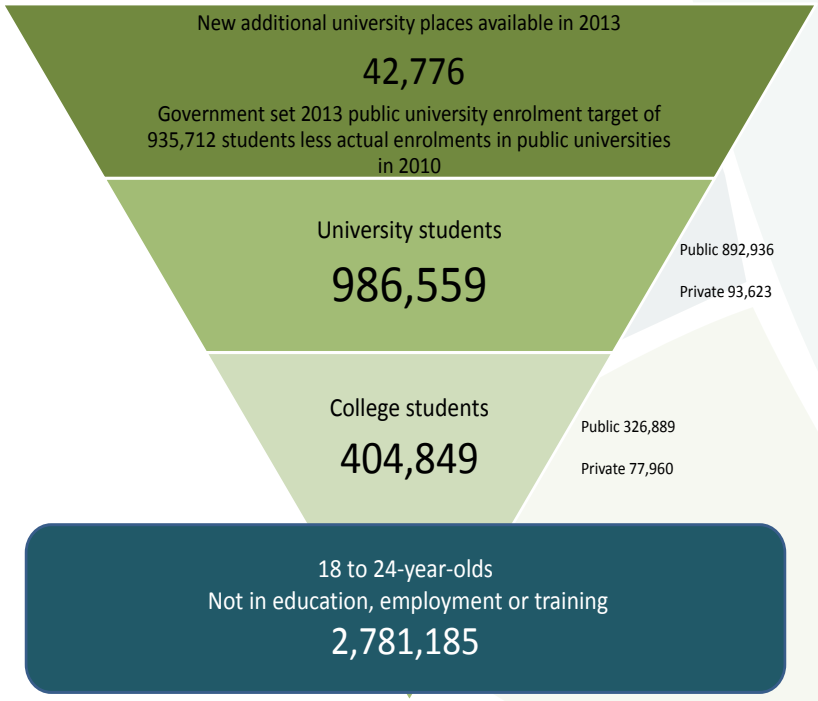
4.3.1.5 Employer perceptions of learners, post training

The survey conducted with employers during the 2014 tracer study indicated that 72% of employers rating learnerships agree that employees from a learnership show an improved attitude towards their work, such as a new pride in what they do. The rating rises to 82% for apprenticeships. Employers also described employees with a learnership or apprenticeship as having a positive effect on productivity (74% learnerships and 82% apprenticeships) (FP&M Employer Tracer Study, 2014).

4.3.2 State of Education and Training Provision

The Post-School Education and Training (PSET) landscape in South Africa comprises 25 universities providing undergraduate and post-graduate qualifications, 50 TVET colleges providing vocational and occupational qualifications and a vast number of private institutions. The Department of Higher Education and Training is responsible for PSET. In Figure 18, PSET provision is characterised by an inverted pyramid shape with the bulk of students at the top of the pyramid in universities and universities of technology. These institutions have more than double the number of students enrolled than TVET colleges. Additionally, there are almost three million youths that are not in education, employment and training. These are termed the NEETs.

Figure 18: An inverted education and training pyramid



Source: CHET, 2013

For the purposes of the SSP, there are two fundamental challenges linked to the state of the education and training system that impact on skills development. The first is access. Despite improvements in access over the past decade, a very small percentage of the population are able to access PSET. Access to PSET is constrained by the poor quality of basic education, high school dropouts, as well as the limited financial aid and absorption capacity at PSET institutions. The massification of the PSET system is required to ramp-up provision and access. The system is recognised for its inverted, pyramid shape – with the bulk of enrolments (more than double) in universities rather than colleges. This limits skills development in desperately needed mid-to-higher-level bands of the NQF. Universities have reached their peak in terms of capacity and cannot provide the level of access required to meet the skills needs of the country, particularly in the mid-level band. The 50 TVET colleges across the country have greater potential to expand access, although there is concern over the quality of lecturers, resources and governance. Until such time that public TVET colleges become quality institutions of first choice, a partnership approach to skills development between SETAs, certain selected TVET colleges and employers is more viable, with SETAs driving increased collaboration and quality assurance within TVET colleges, negotiating on their behalf with employers.

A second challenge is that of **success**. Throughput and graduation rates across the PSET system remain poor. In 2013 the graduation rate was 21% for Masters students and 13% for Doctoral students (DHET, 2015).[1]

[1] *Graduation rates are calculated by dividing the number of graduates in a given academic year by the head count enrolments of that year. These graduation rates function as indicators of what the throughput rates of cohorts of students are likely to be.*

4.3.3 Supply problems facing employers

The range of supply problems facing employers in the FP&M sector varies across sub-sectors.

Appropriate providers: Some industries in pulp and paper, packaging and printing continue to have internal training facilities that cater for training needs. In many cases this is preferred as the machinery and equipment used for training is large-scale, on the factory floor and cannot be moved. In other industries, such as clothing and textiles, regular - more formalised training previously provided by industry training boards has collapsed and become ad-hoc. The impact of this reduced training is beginning to be felt with a shortage of pattern makers, machinists and mechanics. Cut Make and Trim (CMT) businesses are particularly challenged by the fact that they cannot compete with larger manufacturers that have the resources to train themselves. In forestry, the problem lies with getting the balance right between the technical skills and the teaching skills. This impacts on the quality of training. Additionally, there are many fly-by-nights and huge disparities in the quality of training provision. In the past, SAPPI and MONDI had internal training programmes. Now, only Mondi has its own training facilities. The general consensus reached during focus group discussions was that TVET colleges either do not offer the appropriate training programmes needed in the sector (usually because they do not have the necessary equipment and expertise) or they are able to cater for education and training, quality is therefore questioned.

Flexible training: It is vital for manufacturers to meet the rapidly changing needs in the clothing sector. Flexible ways to respond and multi-skilled workforce is no longer a nice to have - but a necessity. Flexible training methods and approaches are also a mandatory requirement.

Type of training: A concern in the clothing sector is that Universities of Technologies tend to focus on longer-term, academic programmes in design as opposed to short-term skills programmes geared towards the manufacturing of garments. Another complaint in this sub-sector was that training has been reoriented towards high-level skills and the result was that the need for basic-level skills had been overlooked.

Releasing employees for training: Manufacturers find it difficult to find time for employees to be released for training due to tight production schedules.

4.3.4 Impact of skills shortages on firms

The skills shortages in the FP&M sector, both low-level and high-level skills, together have had a cumulative effect on industry over the past five years. Many manufacturers are failing to attract younger entrants into the industry and are left with an ageing workforce threatening the sustainability of their business. Once the existing employees retire, the skills gaps will widen substantially. There are not enough machinists and pattern makers, for example, in the clothing industry to sustain the growing demands of clothing retailers and this together with the rising cost of local production has resulted in large imports.

Rapid technological advancements have increased the need for high-level technical skills and machine mechanics. However, a shortage of overall technological expertise (e.g. mechanics and machinists) has meant that skills have had to be brought into the country from elsewhere to maintain and repair machinery and train employees on how to use them.

In some sub-sectors, such as clothing and textiles, basic-level skills training for pattern makers, cutters and machinists has succumbed to a heightened focus on design-type skills. The result has been growing skills gaps at lower skills levels, negatively affecting clothing and textiles manufacturing. Although higher level skills such as design are important for the growth of the local clothing and textiles industry that is targeting a high quality, niche market, the potential for generating large numbers jobs lies primarily with manufacturing and this require large numbers of low-level skills in addition to smaller numbers of high-level skills.

There are not enough mentors and potential trainers in the FP&M sector that can mentor and train on the factory floor. The result has been that many FP&M employers have opted for informal, unaccredited skills training using existing, more experienced employees and supervisors. A challenge faced is that only small numbers of employees can be trained and or up-up-skilled in this way.

4.4 PIVOTAL List

PIVOTAL interventions are defined as programmes that are vocational, occupational, technical and or academic in nature. Part of the sector skills planning research process is to identify a list of PIVOTAL programmes that address skills gaps and hard-to-fill vacancies within the sector. A process of revising the existing PIVOTAL programme list of the SETA has begun as part of the first draft of this SSP.

Table 13: PIVOTAL list

SETA NAME	PERIOD	OCCUPATION CODE (OFO CODE)	OCCUPATION	SPECIALISATION/ALTERNATIVE TITLE	INTERVENTION PLANNED BY SETA	NQF LEVEL	NQF ALIGNED	QUANTITY NEEDED	QUANTITY TO BE SUPPORTED BY SETA	COMMENTS
FP&M SETA	2017/2018	2015-132102	**Production/ Operations Manager (Manufacturing)**	Industrial Production Manager, Works/ Workshop Manager (Manufacturing), Planning Manager (Manufacturing), Processing Unit Manager, Plant Superintendent, Processing Manager, Operations Manager (Production), Plant Manager (Manufacturing).	Learnership, Bursary, Internship	Level 06	YES	320	300	Collected through the sector completed scarce skills template as well as discussed in the focus group.
FP&M SETA	2017/2018	2015-821501	**Forestry Worker**	Bush Clearing Contractor, Forest Laborer/Hand/Pruner, Forestry Contractor.	Learnership	Level 02	YES	80	200	Collected through the sector completed scarce skills template as well as discussed in the focus group.
FP&M SETA	2017/2018	2015-662202	**Printing Machinist**	Instant Printer Operator.	Skills programme	Level 03	YES	75	160	Collected through the sector completed scarce skills template as well as discussed in the focus group.
FP&M SETA	2017/2018	2015-216603	**Multimedia Designer**	Instructional Designer, Interactive Media Designer, Digital Media Designer, Multimedia Artist.	Skills Programme	Level 05/ 06	YES	90	30	Collected through the WSP and ATR PIVOTAL Training data as well as discussed in the focus group.
FP&M SETA	2017/2018	2015-214101	**Industrial Engineer**	Manufacturing Technology Engineer, Process Design Engineer, Operations Research Engineer, Produce Process Engineer, Industrial Efficiency Engineer, Process Engineer, Plant Engineer, Value Engineering, Enterprise Resource Management Engineer, Automation and Control Engineer, Quality Management Engineer.	Bursary, Internship	Level 07	YES	20	120	Collected through the WSP and ATR PIVOTAL Training data as well as discussed in the focus group.
FP&M SETA	2017/2018	2015-683202	**Pattern Maker**	Clothing Pattern Maker, Footwear Pattern Maker, General Goods Pattern Maker.	Skills Programme	Level 03	YES	20	140	In FP&M Sectors, there are elementary occupations that are also hard to fill. In clothing, for example, pattern makers, cutters and machinists are difficult to source particularly those that work in factories.

SETA NAME	PERIOD	OCCUPATION CODE (OFO CODE)	OCCUPATION	SPECIALISATION/ALTERNATIVE TITLE	INTERVENTION PLANNED BY SETA	NQF LEVEL	NQF ALIGNED	QUANTITY NEEDED	QUANTITY TO BE SUPPORTED BY SETA	COMMENTS
			Pattern Maker *(contd)*							The existing pool of pattern makers is aged and insufficient young people are attracted into the occupation. The impact of this reduced training is beginning to be felt with a shortage of pattern makers, machinists and mechanics.
FP&M SETA	2017/2018	2015-312201	**Production/ Operations Supervisor (Manufacturing)**	Manufacturing Foreman, Production Plant Supervisor, Shift Manager (Production), Beneficiation Plant Foreman, Assembly Supervisor.	Learnership, Skills Programme	Level 04	YES	600	80	Collected through the sector completed scarce skills template as well as discussed in the focus group.
FP&M SETA	2017/2018	2015-313201	**Industrial Machinery Mechanic**	Water Treatment Plant Operator, Incinerator Operator, Water Treatment Plant Technician, Liquid Waste Process Operator, Waterworks Plant Operator, Waste Water Plant Operator.	Skills Programme, Apprenticeship	Level 05	YES	40	80	"Although NSDS III focuses on vocational training forestry, has no need for apprenticeships and very few learnerships, our need is for short courses and skills programmes. Mechanisation is taking over in the forestry sector, resulting in decreases in employment. From a training perspectives the NQF levels are moving up from 1 to 4 but there is a gap between 2 and 4 (Focus Group Session, 2015)."
FP&M SETA	2017/2018	2015-832909	**Textile, Clothing and Footwear Factory Worker**	Counting and Packaging Textile Process Worker, Canvas Upholstery Cutter, Textile Machine Attendant, Counting and Packaging Clothing Process Worker, Textiles General Worker, Textiles Table Hand, Clothing or Textile Production Charge hand, Cloth Burler, Textile Production Charge hand, Tying Machine Operator, Woollen Mill Crochet Worker, Bundler, Clothing and Textile Factory Worker, Thread and Yarn Piecer.	Learnership	Level 02	YES	350	80	There is a need for highly skilled people to run the operation of machinery. As (Focus Group Session, 2017)
FP&M SETA	2017/2018	2015-682303	**Wood Machinist**	Carving Machine Operator (Wood).	Skills Programme, Learnership	Level 04	YES	50	75	"There is a need for highly skilled people to run the operation of machinery. (Focus Group Session, 2015)

4.4.1 Methods employed in identifying occupations in the PIVOTAL list

The research design used was a mixed methods approach; that is the integration of both qualitative and quantitative methods. A mixed methods research design is a procedure for collecting, analysing, and "mixing" both quantitative and qualitative research methods in a single study, to address a research question. The purpose for this approach was to supplement our main source of data; this being the WSP and ATR dataset by triangulating with other sources (interviews and survey) in order to identify the skills list. The interviews conducted with sector key informants in the sector as well as the focus group discussions with employers in the sector provided insights that enable for triangulation of the data provided in the WSPs and ATRs.

4.4.2 Interventions in the SETA PIVOTAL list

In the PIVOTAL section of the WSP and ATR submission template, companies are asked to fill in information on the type of PIVOTAL training they require for both employed workers and the unemployed candidates. The fields include the type and appropriate, and/or preferred intervention for the particular occupation, at a specific NQF level. Clarity on what PIVOTAL means is further emphasised during focus groups and other stakeholder engagement sessions. This enables the FP&M SETA to understand the PIVOTAL needs of employers in the sector, across different industries of sub-sectors. The interventions identified in the PIVOTAL list are aimed at addressing the specific skills needs across the occupations that are critical to sector development.

4.4.3 Envisaged outcomes from the identified interventions

Given that the identified PIVOTAL interventions for the different occupations are supposed to address the skills needs and ensure that there are people with skills able to occupy hard to fill vacancies in the sectors, the FP&M SETA understands the value of getting this right. It is thus envisaged that through the selected interventions the FP&M SETA can:

- Address the occupational needs of hard to fill vacancies across all of its 13 sub-sectors;
- Ensure the constant creation of a growing skills pool for the necessary professional and technical needs of its sub-sectors to keep the companies within those sector competitive and productive;
- Address the urgent skills gaps; and
- Create pathways for new entrants through training programmes that lead to qualifications.

Ultimately, the interventions identified and funded by the FP&M SETA are meant to increase a pool of skilled people in the sector who are able not only to be absorbed into hard to fill vacancies, but to also improve productivity and ensure sector sustainability.

4.4.4 Consultative processes to arrive at the occupations identified in the PIVOTAL list

There are a few steps involved in developing a consolidated PIVOTAL list for the FP&M sector. The first step in developing a list of PIVOTAL programmes has been to identify and validate the occupations where skills gaps exist and which have hard to fill vacancies in the FP&M sector. FP&M SETA receives WSP and ATR and PIVOTAL List submissions from pre-dominantly levy-paying entities by the 30th April each year. Staff evaluate applications based on compliance for submission and approval criteria based on the SETA Grant Regulations. Once approval criteria are met, mandatory grants are approved on the system by staff before final approval by Senior Management and the Board.

The SSP research and interviews with industry experts are used to inform a revised set of hard-to-fill vacancies in the PIVOTAL table. Consultation with stakeholders occurs via the following platforms:

- Mandatory and discretionary grants workshop;
- In-depth interviews with industry experts;
- Focus group sessions with employers; and an
- Online employer survey.

Once these processes are concluded, a draft PIVOTAL list is presented to the management of the SETA and agreed on. The PIVOTAL list is then approved by the Board as part of reviewing and approving the SSP.

4.4.5 Main findings that informed the PIVOTAL list

One of the key findings that informed the PIVOTAL list was that the SETA cannot rely solely on identifying skills needs of employers in the sector through WSP and ATR data, and that such data needs to be verified and validated through other research tools such as stakeholder focus groups, interviews with industry experts. During engagement with employers in the sector, hard-to-fill vacancies were not only justified but employers were able to identify the most appropriate intervention to address such skills. The employer-based survey conducted amongst employers in the sector also enabled for validation of skills needs. The triangulation of the data collected through the different methodologies produces relevant information that may be fed into the development of the PIVOTAL table.

4.4.6 Quantities indicated in the PIVOTAL list

The quantities that are considered for the PIVOTAL skills needs are expressed in the WSP and ATR form as each company completes their PIVOTAL skills needs section. In the employers' survey, employers are also required to provide quantities required. One of the fields completed are the number of beneficiaries this is completed for entry level, intermediate level and the advanced level. These are later verified during stakeholder engagement sessions when contact is made with stakeholders. As a verification exercise, the number of people employed by a particular employer are compared with the quantities required.

4.4.7 PIVOTAL list priority listing

The FP&M SETA's PIVOTAL list is ranked in order of priority. After a number of criteria have been satisfied, the list is then ranked according to the highest number of beneficiaries, indicating the extent of such need. The frequency, with which an occupation is identified as having hard-to-fill vacancies provides an indication as to whether this is a widespread sector need or a particular problem in a company or within a region. Additionally, an occupation that can be confirmed through the employers survey, interviews and focus groups has a higher validation level which enables it to be in the prioritised ultimate PIVOTAL list.

4.5 Conclusion

Employers in the FP&M sector experience a range of occupational challenges. Many manufacturing companies in clothing and textiles struggle to fill elementary positions such as pattern makers, cutters and machinists. At the same time, these companies find it difficult to source mid-high level, technical skills such as plant and machine operators, machine mechanics, technologists and technicians particularly due to mechanisation and changing technologies. Employers in print media and publishing struggle to fill professional occupations such as editing, digital publishing, translation and design. Reasons cited for these difficulties include an ageing workforce, manufacturing occupations perceived as less lucrative than retail occupations, less attractive salaries, rapidly changing industry trends creating further productivity pressures, technological advancement requiring constant skills upgrading, the need for multi-level, flexible skills and underprepared graduates.

Both public and private universities and colleges supply education and training in FP&M sector. Higher-level skills such as engineers are predominantly trained at public universities and universities of technology. Public, TVET colleges provide low to mid-level skills through the old Nated programmes and more recent occupational qualifications and to a lesser extent, through vocational programmes such as the NCV. The use of public TVETs in the FP&M sector has been limited to a few sub-sectors (clothing and textiles in the Western Cape and KZN) using a few, more functional TVET colleges. This has been largely due to resource and capacity constraints of TVET colleges and their poor reputation amongst industry. The bulk of large manufacturers have opted for private colleges as the chosen type of provision both on and off-site (SSP Focus Groups, 2015). There is also a substantial amount of unaccredited training taking place in-house, on the factory floors of manufacturers of clothing and textiles, wood products, printing, paper and pulp, and leather goods. Existing employees and supervisors, using heavy machinery used in production processes, often carry out training on-site.

SETA-funded learnerships, apprenticeships, skills programmes and bursaries are an important vehicle in the supply of education and training in the FP&M sector. Over 80% of learners on learnerships are studying towards national certificates applicable to the clothing, textiles, furniture and forestry sub-sectors. The majority of apprenticeships are conducted in the Printing and Packing sub-sectors, with very few in Textiles and Clothing. Apprenticeships occur mostly in Gauteng, followed by the Western Cape, KwaZulu-Natal and Eastern Cape. Overall, completion rates are substantially higher for learnerships than apprenticeships. The FP&M Employer Tracer Study of 2014 indicates a positive correlation between the percentage of learners who complete a learnership or apprenticeship and their employability. Employers also felt that both work ethic and employee productivity improved post the learnership or apprenticeship.

Supply-side challenges are varied. Employers interviewed complained about the availability of suitable training providers. Many were restricted to informal, on-site training due to heavy machinery and equipment on the factory floor. In clothing, the collapse of the training boards has resulted in irregular, ad-hoc training on-site training resulting in shortages amongst pattern makers, cutters and machinists. TVET colleges are utilised for training in clothing-related occupations in the Western Cape and KwaZulu-Natal, although this was not the case in Johannesburg. There is also a shortage of trainers and mentors across the sector. Production pressures have brought about the need for flexible training methods. A variety of training programmes ranging from long-term diplomas and degrees to short-term, skills programmes is a must especially in light of tight production schedules. Finally, a number of employers in clothing and textiles called for the need to include elementary, basic-level training in addition to high-level, design-type training.

5. SECTOR PARTNERSHIPS

5.1 Introduction

The purpose of this chapter is to present the existing partnerships of the SETA as well as new partnerships that the SETA intends to embark on. The chapter identifies challenges to maintaining and creating partnerships, and propose measures for strategic deepening of the TVET partnerships. Partnership development is a key enabler to addressing the objectives of the FP&M SETA.

Strategic partnerships have enabled the FP&M SETA to make a positive impact in areas of rural development, disability, poverty alleviation, gender transformation and youth development through meaningful skills development initiatives. The enabling of work integrated learning through partnerships with industry has increased the pool of workers in critical occupations and created opportunities for unemployed graduates.

5.2 Existing FP&M SETA Partnerships

The FP&M SETA's partnerships with stakeholders in the sector include those that relate to: i) the development of new qualifications; ii) boosting research outputs in the sector; iii) the development of SMMEs; iv) creating skills development centres of excellence and; v) the placement of graduates through internships, work experience and work-integrated-learning programmes. Each of these partnership types reflect the FP&M SETA's commitment to high-impact partnerships in strategic areas of need, closely aligned to national development imperatives in the White Paper on Post-School Education and Training, NSDS III, IPAP, NGP and NDP. This has attracted the support of high-level stakeholders across government (e.g. the DHET, DTI) and within industry, and their enhanced commitment towards public-institutions and community-based initiatives.

Qualifications development

The FP&M SETA has cultivated a close working relationship with the Quality Council for Trades and Occupations (QCTO) and stakeholder organisations to mutually work towards the development of qualifications across sub-sectors. This is a supply side partnership that has led to development of approximately 54 occupationally directed qualifications for 10 industrial sub-sectors (clothing, textiles, footwear, leather, forestry, pulp and paper, printing, publishing, packaging, furniture and wood products). These qualifications are intended to improve the competitiveness of the sector at a local and national level and form part of a national effort to align qualifications to specific occupations, combine theory and practical training and improve the relevance and quality of education and training. Some of these qualifications will be provided at public TVET colleges.

Research and innovation

One of the key partnerships the FP&M SETA has embarked on is the Research Chair partnership with the University of Witwatersrand's Centre for Researching Education and Labour (REAL), that will guide research in the sector over the next three years. One of the key deliverables of this initiative is to undertake the international comparability of 13 FP&M SETA sub-sectors and understand their global context, looking at the industrial structure of the global value chain and the successful industrial strategies implemented worldwide in the sector. The model adopted by the Research Chair at Wits University is to take a group of post-graduate students through a full dissertation route in the new inter-disciplinary field Sectors and Skills. This is reflected through its increased support for research partnerships that are larger and longer-term.

SMME development

The FP&M SETA has partnered with a number of clothing SMME clusters with a view to align with the DTI "industrial clustering" strategy, to address industry and economic growth. The programme has created partnerships with over 50 companies in the Western Cape and 40 companies in KwaZulu-Natal as beneficiaries of this programme aimed at the development

of SMMEs. The programme is working towards improving the capability and sustainability of SMMEs. Training is focused on three key areas: world-class manufacturing, technical skills development and management development and funding support is provided in the form of bursaries and grants.

Community-based skills development

The FP&M SETA entered into a strategic partnership with the Methodist Church of Southern Africa and community-based organisation IMIAP, to build the Richmond-Indaleni Community Skills Development Centre to contribute to the socio-economic upliftment of poor rural communities, and address youth unemployment. This project was complemented by training partnerships with business, like Eddels Footwear, which facilitated the training of learners on a footwear project, and Umgungundlovu TVET College, for the training of unemployed youth from the Richmond Community on clothing, furniture and upholstery learnerships. The FP&M SETA Board has allocated in excess of R25 million towards the establishment of the skills centre. Other SETAs are to be approached to extend the scope of training of the Skills Centre, to include additional technical and other training in Agriculture, Engineering related trades and Hospitality.

Business skills and leadership development

The International Leadership Development Programme (ILDP) is a high-level skills programme pitched at NQF Level 07 and 08, and is specifically intended to give opportunities to previously disadvantaged individuals, to acquire business leadership skills across the FP&M sector and to address transformation in the sector. The ILDP is expected to provide cutting-edge knowledge, best practices and trends in leadership, innovation and entrepreneurship, by visiting influential institutions and engaging established leaders in China and Germany. They would have current and relevant understanding and knowledge to grow their businesses in an increasing globally competitive environment.

Association for Independent Publishers (AIP) and Media24

The FP&M SETA, Media24 and the Association of Independent Publishers (AIP) have partnered to develop a digital training programme that will form part of Media24's ongoing investment in skills development for independent publishers, and is central to the company's initiative to actualise the recommendations of the Print and Digital Media Transformation Task Team (PDMTTT) (Media 24, 2015). The training programme is funded and accredited by the FP&M SETA with over 200 beneficiaries all of which are members of AIP who run their own newspapers in townships, small towns and rural areas across South Africa. The training is focused on assisting smaller publishers to make the transition from pure print products to digital products. The publishing and newspaper industry is rapidly digitising, this partnership provides community publishers with intermediate and high level digital newspaper layout and design skills to develop their own websites and mobile sites. One of the key learnings of this project is on what is involved in building small publishers towards active participation in the digital economy, which demands a baseline of understanding.

Graduate placement

The partnership between FP&M SETA and the South African Graduates Development Association (SAGDA) is a R30 million project facilitating the placement of approximately 857 University and TVET college graduates on internships, work experience and work-integrated-learning programmes. Central to the partnership is the recognition that graduates exposed to professional environments are better placed to find employment. Host employers from a number of sub-sectors included The Foschini Group (TFG), Green Cross, Teardrop Media, Avusa Publishing, Mocobo Communications, Times Media, Aranda Textiles, Adcock Ingram, Nemisa, Ndimase Trading, and City of Johannesburg.

One of the weaknesses of the education and training system in recent years has been the lack of work-integrated-learning, and work experience as part of the programmes targeted at meeting the training needs of sector occupations in demand. Many providers have failed to integrate theory and practical experience into their curricula, and many learners and graduates have not been provided with adequate opportunity to gain practical and work experience in industry - resulting in these learners not being able to qualify and graduates not being able

to find employment. The graduate placement programme will touch the lives of learners and graduates, through its partnerships formed with key industry players across various FP&M sub-sectors.

TVET partnerships

The FP&M SETA has to date accredited 21 TVET colleges, providing occupationally directed programmes. The Furniture Skills Development Initiative in Khayelitsha, in the Western Cape is a partnership between FP&M SETA and False Bay TVET College, this collaboration provides furniture and cabinet making learnerships for 60 unemployed learners.

TVET partnerships like these contribute to enhancing the role of public TVET colleges in the education and training system, and provide programmes relating to key occupations needed in the system. Public TVET colleges are located across the country, close to communities in need of skills development, education and training. Partnerships such as these will improve the quality of programmes offered by these colleges and will target skills needs within these communities and the greater economy.

The FP&M SETA and DHET have commissioned JET Education Services (JET) to investigate how Lead SETA Offices (LSOs) /CSTO Offices can be best utilised to enhance workplace access for youth in TVET colleges. A challenge is to link public TVET colleges with the industry, as part of a capacity-building agenda for colleges. Presently, a strongly held view amongst industry is that unless the capacity of TVET colleges is strengthened and the levels of bureaucracy are substantially reduced, industry cannot commit to working with dysfunctional TVET colleges. In the clothing industry in Gauteng, training provision is limited to informal, on-site training by industry itself. In some cases, employees have to be sent to KwaZulu-Natal for training, as there is no adequate provision in Gauteng. Another constraint is the type of training provided at TVET colleges.

5.3 New Partnerships

It is the mission of the FP&M SETA to establish a range of quality services and partnerships that facilitates an efficient and effective skills development process, which will contribute to achievement of sector competitiveness, transformation and economic growth. New partnerships are critical to inspire growth of the sector. The FP&M SETA is currently in the advanced planning phase of initiating the following new partnerships:

SEDA

Key to the sector's industrial growth strategy, SMME development must be facilitated in a structured manner that would result in the establishment of new business enterprises registered with the Small Enterprise Development Agency (SEDA), and more new and quality jobs being created. The sector's growth nodal areas lie in the development, support and promotion of small enterprises in the sector. Given the funding constraints of the FP&M SETA, opportunities exist for the SETA to develop collaboration projects with SEDA that can be co-funded to promote business entrepreneurship within the sector.

National Youth Development Agency (NYDA)

In order to attend to the Medium Term Economic Framework (MTEF) priority, which addresses youth unemployment, a strategic partnership with the National Youth Development Agency (NYDA) must be established. Targeted projects to address youth unemployment and the placement of unemployed graduates will further the objectives of the skills development mandate of the FP&M sector.

Provincial Government Linkages

Government and sector stakeholders recognise that certain industrial and economic sectors are vulnerable and are in need for growth, employment and competitiveness through implementation of joint collaboration projects, to address specific interventions aligned to key provincial and industrial strategy which is key to secure its future sustainability and growth. The FP&M sector must have a footprint in all nine provinces nationally, in order to facilitate opportunities through established collaboration projects and donor funding to address the scarce and critical skills needs of the sector.

5.4 Challenges Encountered with Partnerships

The implementation of high-level partnerships and continued commitment from stakeholders, particularly industry, has contributed to the success and sustainability of these partnerships. Challenges experienced in establishing and sustaining large-scale, high impact partnerships are briefly discussed below:

Limited Project Management Skills

The sustained management of large scale partnerships between two institutions that function differently is a limited skill within the SETAs. Challenges that arise in such partnerships are often linked to the smooth management of the project from a financial and reporting perspective.

Lack of Initiative from TVET colleges

The development of partnerships is also hindered by the inability of TVET colleges to initiate such partnerships; through proactive engagement with SETAs and industry stakeholders. In such cases, it is left to the SETAs to step in and broker the partnership. That said, unless all parties come to the party, the development and lifespan of the partnership is cut short.

Bureaucratic Delays

One of the main challenges faced in the partnership initiation phases is the long process of contracting, procurement that needs to consider regulations that govern the SETAs, and equally those that govern the institution that the SETA is partnering with. These can be off putting particularly in new ventures that bring together potentially successful partnerships but which can fail when they face legislative or related bureaucratic challenges.

Risk of Slow Delivery

The slow delivery of outputs is a risk that is taken by SETAs each time it initiates partnerships, particularly with TVETs. Often times TVET colleges that stand to benefit the most from the formation of partnerships with the SETAs are those with very limited resource to fully participate in the partnership. A number of the TVET colleges that the FP&M SETA has partnerships with are located in rural areas, thus limiting their administrative and electronic communication resources that are necessary for a successful and sustainable partnership.

5.5 Best Practice for Effective Partnerships

As a young organisation, the FP&M SETA has reviewed its current business operation and structures, and identified the following capabilities that need to be put in place for effective partnerships:

- Identifying objectives of the partnership early on and achieving agreement on the intended outcomes of the partnership;
- Identifying key decision makers and support structures for a partnership, thus ensuring there is role clarity and support of the partnership effort;
- Creating clear lines of communication between the partners and amongst the beneficiaries of the partnership to ensure that challenges encountered are swiftly escalated and solutions found;
- Constant monitoring of the work of the partnership initiatives so that there are early warning signals and ensuring that objectives are achieved; and
- Celebrating successes of the partnership.

These characteristics which were learned from various partnership models that the FP&M SETA has implemented have enabled a sound partnership ecosystem for the organisation.

5.6 Conclusion

This chapter presented the FP&M SETA's key existing partnerships, reflecting the SETAs commitment for forming strategic partnerships towards skills development. The NSDS III places great emphasis of the formation of partnerships and collective responsibility between government, public bodies, employers, business organisations, public and private training providers and SETAs. The partnerships entered into by the FP&M SETA are aimed at bridging the chasm that exist between industry, the education and training system, whilst at the same time addressing real skills needs in the sector. The focus of the partnerships is on delivering innovative yet sustainable solutions where skills development challenges exist. Most of the partnerships respond to national and sector policies and imperatives. As a learning organisation the FP&M SETA is constantly reviewing its partnerships to ensure that when new partnerships are entered into a best practice model is in place to ensure improved implementation.

6. SKILLS PRIORITY ACTIONS

6.1. Introduction

This chapter summarises the key findings that have emerged through the various chapters of this SSP. These are used to develop a set of skills priority actions for the FP&M SETA and FP&M sector. The skills priority actions will feed directly into the strategic and annual performance plans of the Seta.

6.2. Key findings from previous chapters

6.2.1. Contribution of the FP&M sector to the economic growth and development

In Chapter 2 it was reported that output in the FP&M sector has tended to follow that in the wider manufacturing sector and the economy as a whole. Since the economic decline in the 2008/9 financial year, the economic growth in the sector has been volatile resulting in job losses. The recent credit ratings downgrades of the country and recessionary economic growth environment will not bode well for the sector. The FP&M sector has value chain linkages with other sectors based on the exchange and feeder relationships between primary and secondary production during manufacturing, and with the tertiary sector in the marketing and sale of produced goods. An expanded focus on beneficiation is covered in all key national policies and strategies, and will add value to unprocessed goods boosting competitive edge in key markets. Beneficiation necessitates skills development across value chains both within and between sectors.

Chapter 3 highlighted the new technologies developed in textiles and clothing, and new natural fibres currently explored. Existing technology used throughout the sector in manufacturing companies in packaging, printing and print media, paper and pulp, textiles, clothing are now designed to operate faster and more efficiently. Increased mechanisation may reduce the demand for labour. At the same time, technological changes are the biggest drivers of demand for skills, as workers have to continuously upgrade their skills to keep up. Environmental sustainability through reductions in carbon emissions, waste and more efficient fuel consumption has become and is likely to continue to be a key driver of change in the sector. There is a growing need for higher-level knowledge and skills linked to developing and using green technologies and, increased research on more sustainable means of production.

6.2.2. Demand-side challenges

As was noted in Chapter 4, many manufacturing companies in clothing and textiles struggle to fill elementary positions such as pattern makers, cutters and machinists. At the same time, these companies find it difficult to source mid-high level, technical skills such as plant and machine operators, machine mechanics, technologists and technicians particularly due to mechanisation and changing technologies. Employers in print media and publishing struggle to fill professional occupations such as editing, digital publishing, translation and design.

6.2.3. Supply-side challenges

It was reported in Chapter 4 that the use of public TVETs in the FP&M sector has been limited to a few sub-sectors such as the clothing and textiles sub-sectors in the Western Cape and KZN, using a few, more functional TVET colleges. The bulk of large manufacturers have opted for private colleges as the chosen type of provision both on and off-site. There is also a substantial amount of unaccredited training taking place in-house. There is a shortage of trainers and mentors across the sector. Long-term training programmes are not always suitable for manufacturers with tight production schedules. SETA-funded learnerships, apprenticeships, skills programmes and bursaries are another important vehicle in the supply of E&T. Transformation remains a challenge in all sub-sectors with the white population disproportionately represented in the higher skills and income occupations, and the black population mainly in the lower skills and income income groups. More needs to be done to achieve equity within the sector and skills development can play an important role.

6.2.4. Partnerships

The FP&M SETA has a variety of partnerships with stakeholders in the sector which were highlighted in Chapter 5.

Partnerships relate to:

- The development of new qualifications;
- Boosting research outputs in the sector; developing SMMEs;
- Creating skills development centres of excellence and placing graduates through internships, work experience and work-integrated-learning programmes.

Opportunities exist for the SETA to develop collaboration projects with SEDA, these joint forced can be co-funded to promote business entrepreneurship within the sector. Challenges experienced in establishing and sustaining large-scale, high impact partnerships include limited project management skills within the SETA to manage different types of organisations (for example universities, individuals, consultants etc.), the inability of TVET colleges to initiate partnerships, bureaucratic delays in the partnerships initiation phase of the SETA, and, the slow delivery of outputs in partnerships established with weaker TVET colleges.

6.3. Key Priority Actions

The following priorities have been identified to inform the work of the FP&M SETA over the period 2018-2022. The intention is to translate these strategic interventions into detailed plans and to integrate them into the day to day work of the SETA.

6.3.1. Expanding the economic contribution of the FP&M sector

Adopting a value chain approach

Earlier chapters have alluded to the importance of a value chain approach for boosting economic development and competitiveness. This approach requires increased interaction between the FP&M SETA and other SETAs involved in skills development across the value chain.

Incorporating skills development into the cluster model

Globally there have been success stories linked to the establishment of clusters (or economic zones/hubs) linked to specific industries. The cluster model values intra-firm cooperation, resource sharing, innovation spread, risk sharing and the benefits of Economies of Scale - thereby promoting collective efficiency through such interactions. In countries, like Finland where clusters have been developed, structures similar to SETAs have a presence within the clusters, as do public tertiary and higher education institutions. Similar models can be explored for FP&M sector clusters.

Expanding industry competitiveness and exports

Creating new production capacity is not a simple matter; as it implies planning beyond the traditional scope of current industries, and projecting skills needs not on the basis of current production - but future potential production processes. Skills development for productivity improvement is thus an area that the FP&M SETA will give urgent attention to, including training

in the use of future technologies and production methods. Equally there is a need to reduce the reliance on imported machinery. This challenge will require discussions between FP&M sector stakeholders and stakeholders in the metal industry manufacturing sector, the Department of Science and Technology and the Department of Trade and Industry.

Training for technology-driven production

It will be important to develop skills development solutions to address emerging technologies. Digitisation has changed the FP&M sub-sector considerably in recent years, further innovations can be expected. Those employees whose jobs will change due to application of modern production methods must be provided with the opportunity to learn these new production methods, and not just retain their jobs but to go on to occupy more highly skilled and better paid jobs. There is also potential for expanding eLearning within the sector. Importantly, there must be development of local skills for maintaining imported equipment and machinery; and training trainers on use of new machinery and equipment.

Growing quality SMMEs and co-operatives

There will be more support to the development of skills within SMMEs, including the micro, emerging enterprises and co-operatives. There are many causes of small enterprises not benefitting from opportunities and skills are needed to address many of them. However, it is difficult for small businesses to engage in training, and to develop capacity to do many things with few people. Training opportunities need to be structured in a manner that enables them to participate and take their organisations to new levels. Mechanisms must be found to enable greater participation.

Promoting environmental sustainability

There is a need for a concerted approach to natural resource management including protection of scarce resources such as water, soil and marine life and the management of ecosystems, and generally improved risk management. Research and the promotion of alternative production methods is envisaged, as well as improved regulations and enforcement. There are significant opportunities for green production and other contributions to environmental sustainability. There is potential for carbon sequestration in plantations to be recognised, as this can then be used to off-set carbon emissions in the sector and at the same time assist in promotion of planting trees in community land. This will empower communities and lead to further economic development. There are opportunities for recycling and the emergence of small business to take on some of this work. The SETA will support training of such enterprises as they emerge.

Promoting world-class manufacturing

The development of high-level, leadership skills through programmes such as the ILDP in which candidates are exposed to cutting-edge knowledge, best practices and trends in leadership, innovation and entrepreneurship is key to the promoting of world-class manufacturing - through the development of an effective leadership band within the sector.

6.3.2. Addressing demand-side challenges

Many scarce skills occupations such as machinists and machine mechanics have an aging workforce. FP&M SETA will identify the scarce skills occupations where the skills may be lost due to retirement, and design interventions to address the challenges. This could include encouraging succession planning linked to internships, supported by quality coaching and mentoring. Various strategies are being used to retain experienced people in different capacities linked to skills transfer and these will be supported.

6.3.3. Addressing supply-side challenges

Creating a multi-skilled workforce (technical and managerial)

Changing demands by industry and consumers solidifies the need for workers and managers to be multi-skilled. That said, basic skills training must not be overlooked. The core strategic challenge facing skills development in the sector is where to concentrate resources in ways that will best support the sub-sectors to achieve inclusive growth. If - in some industries - it is necessary to focus less on new entrants and more on retraining of existing employees, and this is based on a sound analysis of need, then the SETA will invest in such training. In some sub-sectors the aging workforce necessitates an expanded focus on new and younger entrants. A priority may be to train retired machinists, pattern makers, cutters and operators to be trainers and/or mentors of the younger cohort of entrants into the industry.

Developing flexible training methods required for flexible production

Modern production models are often based on producing smaller product lines; producing the right product at the right time with minimum wastage. Such production models require a different approach to skills development. Existing employees are often not able to leave the factory floor to be trained and upskilled due to tight production deadlines. Similarly, new entrants are expected to contribute to productivity as quickly as possible. This includes not only the design of the intervention (occupational qualification or module of skills), but also the structure of delivery.

Expanding work-based training

Training on the factory floor becomes increasingly attractive for manufacturers both in terms of the practical training that can be delivered on site, as well as the reduction in opportunity costs associated with off-site training. It also helps to address gaps in formally provided training. New entrants qualifying in occupational qualifications are often not work ready. The SETA will develop a particular focus on expanding workplace located training. This implies paying attention to the capacity of employers, to plan and supervise effective on the job training and for improved partnerships between employers and providers to integrate workplace and institution-based training. In some sub-sectors, there is a need for an expansion of internships, the SETA will need to assist in the structuring of such programmes, and supporting employers and interns to obtain maximum benefit.

Managing the quality of training and associated perceptions

There is a perceived gap or divide between the standards that sub-sectors are looking for in relation to new employees, and what the education and training institutions are delivering. The SETA will assist in developing stronger collaboration between sub-sector employers and stakeholders, and education and training institutions. The SETA will help bring providers and employer organisations together to address issues and concerns regarding the supply side. The greater degree of understanding that is developed between employers and providers, and the greater the number of partnership projects and programmes, the closer the sector will get to achieve the quality of performance from employees that is being sought.

6.4. Measures to Support National and Sectoral Strategies

In most FP&M sub-sectors success is dependent on a number of public policy interventions and initiatives. It will be important for the SETA to work with relevant government departments and public entities, to put in place stakeholder structures that address some of the identified challenges and furthermore take advantage of the benefits and support available.

Contributing to SIPS

The SETA has an important role to play in assisting stakeholders to combine and align their interests and achieve synergies between different strategies and programmes. Through the establishment of occupational teams within infrastructure projects - that bring together employers, training providers, professional bodies and other key stakeholders such as trade testers and license issuers, it is anticipated that there will be better alignment between the theoretical knowledge in the curricula of E&T institutions and practical learning in the workplace and that work placement will expand and improve. The FP&M SETA will play a facilitation role in the establishment and work of these Occupational Teams.

Supporting Implementation of IPAP

The clothing industry has been identified as one of the priority sectors in IPAP. The future of the industry, and to a great extent the furniture manufacturing and leather goods industries, is dependent on two levels of skills provision, the first being the production of lower level, technical skills and the second, the production of higher level, technical and design-orientated skills needed to meet high-fashion demands of large retailers. It is imperative that a multi-layered, partnership approach is developed. Manufacturing companies and training providers (such as Universities of Technology, TVET colleges and private providers) should partner in the development of basic level skills. Manufacturers and retailers should partner in the development of skills linked to fast-fashion and design. TVET integration on the supply side will be a gradual process starting with the FP&M SETA brokering partnerships between industry and the better functioning colleges.

Supporting Small Businesses

Opportunities exist for the SETA to develop collaboration projects with SEDA, these joint forces can be co-funded to promote business entrepreneurship within the sector. The creation of industry-specific incubators that include skills development as a central pillar, may be one approach to providing support to small and micro enterprises and improving their sustainability. co-operatives in the sector must become part of the mainstream economy. The FP&M SETA can contribute to technical up-skilling of cooperative members and the provision of business skills needed to effectively establish and run the cooperative.

6.5. Conclusion

The SSP for the FP&M sector provides direction around the development of relevant and appropriate skills for the sector in order to address current skills gaps but to also anticipate future need. The SSP aims to bridge the gaps between employers and providers of education and training, and ensure that workers in the sector are receiving training that addresses their skills needs. Research and stakeholder engagements are conducted annually to ensure that the five chapters of the SSP provide an up to date plan that conceptualises the skills challenges in the sector and provides possible solutions. The FP&M SETA translates the priority actions in this SSP to inform operational planning and allocation of resources.

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