



destea

department of
economic, small business development,
tourism and environmental affairs
FREE STATE PROVINCE

PROVINCIAL RESEARCH ADVISORY COMMITTEE (PRAC) AND THE MANUFACTURING CLUSTER

QUARTER 2: 2019 REPORT

A FOCUS ON THE MANUFACTURING SECTOR

STRATEGIC PLANNING AND RESEARCH CHIEF DIRECTORATE

ECONOMIC RESEARCH DIRECTORATE

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1. Introduction

The Economic Research Directorate has partnered with the Sector Development Directorate in convening the Provincial Research Advisory Committee (PRAC) meetings for the 2019/20 financial year. For this period, the Directorates have collectively agreed that the focus of the committee meetings should be on the manufacturing industry. On Friday 27 September 2019, the second PRAC meeting of the financial year was convened with the theme “Analysing the factors contributing to the developments in the manufacturing industry and identification of opportunities in the manufacturing sector value chains”. This particular meeting was held in collaboration with the Department of Trade and Industry (the dti).

The meeting was attended by representatives from Desteas Integrated Economic Development as well the Strategic Planning and Research Units, the Central University of Technology (CUT) Product Development Centre, the Department of Trade and Industry (the dti), Motheo TVET College, the Free State Development Corporation (FDC), the Manufacturing, Engineering and Related Services SETA (merSETA), Brandt BRV motors and other standing PRAC members. (The complete attendance register as appended hereto as “Annexure A”).

2. Presentations¹ and Discussions

Mr. Booyesen from the Central University of Technology (CUT) Centre for Rapid Prototyping and Manufacturing (CRPM) set the tone for the meeting by presenting on Additive Manufacturing (AM), better known as 3D printing, supporting the industry. The presentation showed that the global growth rate for AM is now approaching exponential growth of 875% in the past five years. Within this context South Africa produced approximately 4 400 AM systems in 2016 and 5 600 in 2017. The CRPM was established in 1997 and manufactures around 15 000 AM parts annually. CRPM has 750 commercial clients including the CSIR, Denel Dynamics and Dutton Plastics Engineering. Laser technology is used as part of 3D printing. AM products developed by CRPM are mainly used for medical applications. Benefits of AM in medical application include aspects such as:

¹ The presentations are accessible on the Desteas website by opening the link http://www.edtea.fs.gov.za/?page_id=1920

- Reduced theatre time using 3D printed implants, cutting/drill guides
- Pre-operative planning models are elaborated on
- Reduced theatre time has a ripple effect on faster patient recovery time
- 3D printing improves clinical efficacy with better fitting implants at a lower cost.

Currently 95% of medical devices in South Africa are imported which presents an opportunity for localisation, reduced cost and access for more patients if localised. CUT would like to sign a MoU with the Free State Department of Health to be able to provide devices for the province. Mr. Booyesen shared medical success stories of a patient who had been disfigured after a hijacking. Working together with the Carl and Emily Fuchs Foundation and other partners the recipient successfully underwent reconstructive surgery.

Mr. Tsikwe from the Motheo TVET College Rapid Incubator and Centre for Entrepreneurship presented on the importance and contribution of support programmes towards growing the provincial economy. The centre was established in 2017 and has since helped train 524 students and members of the community in entrepreneurship as well as contribute in the formation of 14 small and medium businesses. Mr Tsikwe expressed his personal experience having worked at the centre with up and coming entrepreneurs. He shared that although entrepreneurs face funding challenges they lack entrepreneurial thinking which is the ability to identify marketplace opportunities and discover the most appropriate ways and time to capitalize on them. With regards to the various funding institutions he suggested that they should be cross functional and to coordinate support efforts.

Mr. Slabbert from merSETA presented on education and skills development: embracing the 4th industrial revolution. The merSETA is one of the 21 Sector Education and Training Authorities (SETAs) established to promote skills development in terms of the Skills Development Act of 1998 (as amended). The merSETA encompasses Manufacturing, Engineering and Related Services. Mr. Slabbert's presentation highlighted the demands of the 4IR in terms of coding, robotics and algorithm thinking. Slabbert advised that the province should develop a Proactive Integrated Framework Strategy on how to approach the existing challenges that come with the 4th Industrial Revolution. Adding to this Slabbert cautioned that a failure to do

so may result that the rest of the world subjugating South Africa leading to increased poverty, unemployment and equality.

Mr. Brandt from Brandt Radical Vehicles (BRV) presented on the status of the company`s manufacturing operations and future prospects. Brandt BRV is a privately owned proudly South African motor vehicle manufacturer, designing and manufacturing off-road pick-up trucks, including game viewing cars. The factory is based in Bloemfontein, Free State. Established in 2003, the company employs 25 individuals with the capacity to produce 20 vehicles per month. Although the vehicles are designed and manufactured in the Free State only two of the vehicle`s components are sourced locally, namely the rear differential axis and the steering wheel. The company is currently awaiting SABS approval in order to operate as an on-road vehicle manufacturer and have financial institutions financing their cars.

The Department of Trade and Industry`s (the dti) Ms. Makgothi made a presentation on the department`s 2018/19 annual incentive performance. Ms Makgothi shared that the purpose of the department`s incentive programmes is to grow sustainable, competitive enterprises through accessible industrial finance that supports national priorities. The economic impact of the incentives is measured through various indicators such as job creation, exports, skills development, supplier development and industrial decentralisation and localisation. For the 2018/19 financial year incentives amounting to R198 million with a project investment value of R1.7 billion were approved for Free State province. This investment is projected to create approximately 1 331 jobs and retain 361 jobs. It was noted that the Free State province performed worse than expected in terms of Export Marketing and Investment Assistance (EMIA) Scheme. This particular incentive programme aims to support exporters to explore new export markets. In terms of the Black Industrialist Scheme (BIS), R69.5 million has been approved for two Free State based Black Industrialists namely; Kevali Chemicals and Maneli Pets.

3. Conclusion and Recommendations

Despite the sector`s potential, manufacturing has not been performing optimally both in terms of its contribution to economic growth and employment creation. It is important

that investments are made in newer and advanced sub sectors such as additive manufacturing (AM). CRPM currently has ten AM machines which makes it one of the best equipped AM Centres of its kind in the Southern Hemisphere. The centre received ISO 13485 certification for 3D printing of medical devices making it the first centre in South Africa and Africa to receive this prestigious certification for an Additive Manufacturing Centre. This is a competitive advantage that the Free State should exploit. It is important to develop the Free State's market and then work to upscale it. This can be done through further research and development. This research should be done in collaboration with SEDA and the IDC helping to find ways to incorporate up and coming Free State SMMEs.

Opportunities in the mining of e-waste should be investigated to further serve the Free State economy. Proper management of e-waste stands to benefit the manufacturing industry, people health and the environment. According to a joint report by the World Economic Forum and the World Business Council for Sustainable Development, the material value of the world's spent devices amounts to approximately \$62.5 billion which is 3 times more than the annual output of the world's silver mines.² On the African continent an average annual 1.9kg of e-waste is generated per individual. This figure is even higher in the South African context where according to the e-Waste Association of South Africa (eWasa) each individual generates about 6.2kg of e-waste on an annual basis.³ The CUT already has an e-waste management centre. With adequate investment and government support the centre should work with individuals who would otherwise be operating in the e-waste industry informally. This will help promote proper reusing, repairing, redistributing and refurbishing of e-waste to recycle materials such as gold, silver, copper, platinum and iron.

Collaborating with merSETA, the private sector and the institutions of higher learning such as Motheo TVET, the Department must work on how to address the low entrepreneurial skills and attitudes in the province. Possible interventions could include providing ongoing mentorship at the individual entrepreneur's business site as opposed to in a classroom training programme. This will provide the business owner with practical experience aimed at addressing issues based on the needs of the

² World Economic Forum. 2019. A New Circular Vision for Electronics: Time for a Global Report

³ Mail and Guardian. 2018. South Africans are Drowning in E-Waste

entrepreneur.⁴ This is in line with another intervention of establishing a one-stop-shop to reduce the red-tape for businesses and business development services. In the first quarter PRAC meeting the FDC reported that the process was at an advanced stage but that the main challenge was securing the premises for the one-stop-shop facility. This one stop will assist in coordinating the efforts of the various support programmes towards growing the provincial economy.

The Free State provincial government intends to hold its first annual 4IR Summit in November 2019. The summit intends to serve as a stage where government and key industry role-players can discuss ways the province can adapt to the challenges and opportunities presented by the Fourth Industrial Revolution (4IR). Participants will be given an opportunity to share their learning, expertise, and unpack the opportunities and challenges that come with the fourth industrial revolution. It is recommended that merSETA, the CUT CRPM, the dti and the IDC join the summit's planning committee to help address the role of the 4IR in the manufacturing industry.

Brandt BRV motors presents an opportunity for a niche off-road vehicle. The vehicle which is fully designed and manufactured in the Free State province is already in high demand both locally and in neighbouring countries such as Botswana. One of the biggest drawbacks faced by the company is that they are currently not SABS approved. The company has however shared that they are actively pursuing this approval which would allow them to manufacture on a larger scale. This will open up the manufacturing value chain allowing for the company to source more vehicle components such as steel from local suppliers at competitive rates as a result of increased economies of scale. The manufacturing of some of the automotive components have the potential of enabling the economy of the Free State to upgrade to high-tech manufacturing and this would benefit from existing technology, capital, institutions and skills.

The 2018/19 dti Annual Incentive Report showed yet again that when compared to other provinces there is a low uptake of incentives in the Free State province. It is important to get a clear picture as to why this is the case especially in the instance of

⁴ Marais L. 2008. Missing the Target: Business Development Support to the Second Economy

incentives such as EMIA where the province is generally expected to perform well. Accordingly, the dti should provide a comprehensive report on the application for incentives by the Free State investors. If the problem is lack of awareness, then a campaign to ensure that investors and potential investors are aware of the incentives should be embarked upon. FDC should also develop a comprehensive package of incentives that would set the Free State as an investment destination apart from other provinces.

The department still intends to collaborate with the Free State Manufacturing Association to host a Free State Manufacturing Indaba. The Indaba intends to create a platform where business owners, industry leaders, government officials, capital providers and professional experts come together to explore opportunities, grow their manufacturing operations and ultimately grow the Free State manufacturing industry. Industry role players will be able to share and identify industry trends; remain up to date with the international competition, welcome digital innovations; foster a skilled workforce; promote black industrialist partnerships and acquire insight into what incentives are available from the various institutions to better empower their businesses.

An Investment Summit for Free State Province will be hosted by Destea during October 2019 and it will provide investment opportunities in the various sectors, including manufacturing. Role-players both in the private and public sectors have to engage directly with global and the country's business and political leaders to improve confidence in the province's economy and help spur sustainable and inclusive growth.

Annexure A: Attendance Register

Name	Organisation
Adv. J. Mosia	<i>DESTEA</i>
Mr. A. Jansen	<i>DESTEA</i>
Ms. P. Kgwale	<i>DESTEA</i>
Ms. M. Mokalobe	<i>DESTEA</i>
Ms. M. Chabe	<i>DESTEA</i>

Ms. B Kruger	<i>DESTEA</i>
Mr. S. Belot	<i>DESTEA</i>
Ms. T. Makgothi	<i>The Department of Trade and Industry (dti)</i>
Ms. N. Yose	<i>Industrial Development Corporation (IDC)</i>
Mr. L. Molebatsi	<i>IDC</i>
Mr. G. Slabbert	<i>merSETA</i>
Mr. G. Booysen	<i>Central University of Technology (CUT)</i>
Dr. E. Amoakoh	<i>CUT</i>
Mr. G Brandt	<i>Brandt BRV</i>
Mr. D van Niekerk	<i>Brandt BRV</i>
Ms. M. Mojatau	<i>Seda Agricultural and Mining Tooling Incubator (SAMTI)</i>
Ms. L Seane	<i>Free State Gambling, Liquor and Tourism Authority (FSGTLA)</i>
Mr. B. Claassen	<i>Small Business Enterprise Development (SEDA)</i>
Ms. Z. Uwah	<i>CUT</i>
Mr. L Tsikwe	<i>Motheo TVET</i>
Ms. R. Xaba	<i>University of the Free State</i>
Ms. M.A. Mapepesa	<i>DB Poultry</i>
Ms. A Maree	<i>Office of the Premier</i>
Mr. B. Dithebe	<i>National Youth Development Agency (NYDA)</i>
Ms. MT Mokoena	<i>Department of Agriculture and Rural Development (DARD)</i>