

ZIMBABWE

ENGINEERING, IRON AND STEEL SECTOR STRATEGY

2015– 2020





Zimbabwe Engineering, Iron and Steel Sector Strategy 2015 – 2020

“To be a recognized leader in the sustainable production and supply of value added iron and steel products and engineering services”



Note to the readers

The Zimbabwe Engineering Iron and Steel Sector Development Strategy presented in this document has been crafted by local stakeholders using a participatory private sector-led multi-stakeholder approach. Under the lead of the Engineering, Iron and Steel Association of Zimbabwe (EISAZ), between April and November 2015 more than 60 people representing the engineering, iron and steel industry, including private sector companies, Government, support institutions and civil society have undertaken a market-driven value chain analysis and contributed to identifying priorities at national, institutional and firm level for the revival of the sector.

This strategy is aligned with the national development plans (National Trade Policy (NTP) and Industrial Development Policy (IDP) 2012-2016) and seeks to provide a framework for national, regional and international policy coordination and development activities. It is also intended to be taken into consideration in the allocation of resources and in the development of new policies and national investment plans.

The results and recommendations contained in the document represent a concerted outcome from engagement by public and private sector stakeholders and contribute to identifying:

- Market potential at national, regional and international levels;
- National macro-economic and policy challenges based on industry goals and opportunities;
- Actions to be undertaken at the national level by various stakeholders;
- Realistic policy and business goals and implementation objectives; and
- Resource prioritization and allocation.

The Zimbabwe Engineering, Iron and Steel Sector Strategy was developed in response to a stakeholders' request and was facilitated by the International Trade Centre (ITC) under the "Trade and Private Sector Development Programme" (TPSDP) funded by the European Union.

As a component of the TPSDP, this Strategy constitutes a vital input for the revival of the industry, with a focus on the strengthening of intermediary organizations, business associations and umbrella organizations working in trade, private sector development and SMEs issues, as well as on the enhancement of public-private sector dialogue, the participation of the private sector in policy making and the achievement of critical business environment reforms, particularly insofar as the cost of doing business is concerned.

Acknowledgements

The participatory workshops and consultations for developing the engineering, iron and steel sector strategy were championed by the European Union Delegation in Zimbabwe, the Ministry of Industry and Commerce and the Ministry of Small and Medium Enterprises and Cooperative Development, and facilitated by ITC. All decisions and deliberations were led by EISAZ. The private sector played an active role throughout the process, which ensured a strong representation of the key public and private sector stakeholders for all stages of the Engineering, Iron and Steel Value Chain.

ITC provided EISAZ and the public and private stakeholders with support on technical matters related to the participatory process and facilitated the multi-stakeholder workshops as well as the mandate and work of the four participatory working groups. The latter were responsible for articulating the goals, supporting objectives, measures and strategic initiatives to address the value chain constraints and bottlenecks and identify the priority policy and business. The most significant contribution of the participatory workshops and the working groups was that it enabled representative stakeholders to come together for the first time to analyse their needs and interdependencies and from there articulate common objectives that responded both to development and market priorities.

EISAZ and ITC wish to thank all the stakeholders and the Government authorities involved in this process.

In particular:

Working Group leaders and EISAZ staff members: Mr. Zondi Kumwenda, Mr. Patrick Munyaradzi, Mr. Ntando Tshabangu, Eng. Lloyd Nyemba, Dr. Gibson Chigumira, Mr. Christopher Tsimba, Mr. Wellington Matsika.

ITC: Mr. Hernan Manson, Prof Owen Skae, Mr. Tommaso Ferretti.

Support institutions: ZEPARU, SIRDC, ZimTrade, Ministry of Industry and Commerce and Ministry of SMEs

A list of the contributors to this process is contained at the back of this document.

Background: EU's Trade and Private Sector Support Programme (TPSDP) and ITC's implementing role

Despite nearly a decade of political, social and economic turmoil, Zimbabwe has the opportunity and the potential to once again become an economic powerhouse in Southern Africa. However, there are still several economic and social challenges hindering the country from the attainment of this goal.

The European Union's Trade and Private Sector Development Programme (TPSDP) was designed to support the implementation of national economic policies, which aim to address these challenges and ensure a sustainable economic growth path for Zimbabwe. The TPSDP has aligned its interventions with Zimbabwe's National Trade Policy (NTP) and Industrial Development Policy (IDP) 2012-2016. The NTP focuses on building a sustainable export culture in all industrial sectors, whilst the IDP explicitly seeks to increase the contribution of the manufacturing sector to GDP from 15% to 30% and export earnings from 26% to 50%.

From the aforementioned, the TPSDP specifically operates to:

- strengthen the capacities of intermediary organizations;
- enhance the business environment and improve the role of the private sector.

These goals respond directly to ITC's strategic priorities:

- Improve the availability and use of trade intelligence;
- Enhance trade support institutions and policies;
- Mainstream inclusiveness and sustainability into trade promotion and export development policies and initiatives.

For these reasons, a specific goal of the TPSDP and of ITC's role as the implementing partner of this programme was to transform Zimbabwe from a producer of primary products to a producer of value-added products. In this framework, the Engineering, Iron and Steel Sector of Zimbabwe was identified as a priority sector in the IDP, and it was been included into the TPSDP as a key area for implementation.

In alignment with the main goals and the approach of the TPSDP, the interventions for this sector fell within the framework of Result Area 2 of the Programme: Intermediary organizations, business associations and umbrella organizations working in trade, private sector development and SME's issues are capacitated. The core intervention aimed at improving the quality and availability of Business Development Services.

In particular, the interventions targeted the increased capacitation of the Engineering, Iron and Steel Association of Zimbabwe (EISAZ). The EISAZ has always played a key role both at sectoral and national level. It is able to enhance and positively influence the business environment; promote the participation of the private sector in the policy-making process and in the identification of the main issues and possible solutions for the sectorial and Zimbabwean economic recovery. In this context, ITC facilitated a series of participatory multi-stakeholders workshops and provided support to the efforts of four participatory working groups which led to the development and elaboration of this strategy between April and October 2015.

Forewords by the EU Head of Delegation




First of all, I would like to thank and appreciate the role played by the Government of Zimbabwe, in particular the Ministry of Industry and Commerce, the private sector players in the engineering sector represented by the Engineering Iron and Steel Association of Zimbabwe (EISAZ) and the International Trade Centre (ITC) in the development of this strategy. This strategy is important in as far as it contributes to Zimbabwe's economic development vision as outlined in the country's economic development plan, "The Zimbabwe Agenda for Socio-economic Transformation" (ZIMASSET), and in particular to a strong, vibrant and competitive private sector.

The private sector is an engine for inclusive economic growth because it generates decent jobs, contributes to public revenue and provides affordable goods and services to the population. By investing in suitable and innovative business models, the private sector improves poor peoples' lives by boosting their productive activities. The EU, in its 2011 Communication "Increasing the impact of EU Development Policy: An Agenda for Change", recognises the important role played by a competitive local private sector in advancing economic growth and development objectives. For this reason, the European Commission assists developing countries in their economic reforms and private sector development initiatives. In May 2014, the European Commission published a new communication titled "A Stronger Role of the Private Sector in Achieving Inclusive and Sustainable Growth in Developing Countries". This new strategy puts the private sector at the forefront of international development in its partner countries. One of the key focuses of the strategy is "*Creating a business environment conducive to private sector initiative*".

EU support to trade and private sector development in Zimbabwe under the Trade and Private Sector Development (TPSD) programme is premised on the above EU policy documents and is aligned to ZIMASSET. The support is also in line with the 2030 Sustainable Development Goals (SDGs), in particular goals number 8, 9 and 12 that cover the promotion of strong, inclusive and sustainable economic growth and decent work for all; sustainable industrialisation including ensuring sustainable consumption and production patterns.

A robust engineering, iron and steel sector is crucial to the revival of the Zimbabwean economy as it forms the foundation of a healthy manufacturing sector. It also has strong linkages with all other sectors and hence forms the backbone of a strong economy. It reduces the reliance on imports, promotes intra- and inter-sector activity. It is expected, over the medium to long term, to enable Zimbabwe to resume its role as an exporter of quality goods and services. The sector has the potential to regain its status as a significant contributor to the economic development of the country and the region, alongside agriculture and mining. This strategy is an important step towards realising this dream. The EU stands ready to collaborate with the Government of Zimbabwe and private sector stakeholders in the promotion of a conducive environment for the success of this strategy.



Philippe VAN DAMME
Head of Delegation

Ministry of Industry and Commerce



The Ministry is proud to be involved in the Engineering, Iron and Steel Strategy development, a Government priority in the economic transformation of our Country.

The Engineering, Iron and Steel Sector has been and will continue to be the backbone of the industrial transformation in Zimbabwe. Despite the challenges, the sector continues to play a significant role in job creation, exports and value added services. Government is undertaking aggressive measures to address these challenges through coming up with appropriate policies and strategies. In crafting these policies Government is guided by the economic blueprint ZIMASSET: 2013-2018 and the recently enunciated Ten Point Plan, which serve as a solid foundation under which this strategy was designed and crafted.

The abundance of iron ore and related raw materials locally, combined with highly skilled manpower, will go a long way in facilitating the implementation of the strategy. The Strategy, if well implemented, will bear the expected fruits not only in terms of generating the much needed foreign currency, but also repositioning Zimbabwe on the regional and global market.

The strategy identified six pillars of which when achieved will place the sector on the road towards fulfilling the sector's vision. The pillars are: skills and efficiency enhancement to SMEs sector, market studies and competitiveness, EISAZ's capacity development, cluster development skills upgrading and opportunity enhancement.

The Government of Zimbabwe would like to express sincere appreciation to the European Union (EU) and the International Trade Centre (ITC) for the technical and financial support in coming up with this strategy.

Our appreciation also goes to research institutions including the Zimbabwe Economic Policy Analysis Research Unit (ZEPARU) and the Scientific and Industrial Research and Development Centre (SIRDC) for coming up with proposed measures which can help revive the Engineering, Iron and Steel Sector.

Once again, let me thank all the stakeholders that participated tirelessly in coming up with this very important strategy which will undoubtedly enable the successful and accelerated implementation of the ZIMASSET.

A handwritten signature in blue ink, appearing to read 'Hon. MC Bimha, MP'. The signature is stylized and written over a horizontal line.

Hon. MC Bimha, MP
Minister of Industry and Commerce

November 2015

Private Sector Statement



When I became President of the Engineering and Iron Steel Association of Zimbabwe little did I know that I will be seized with such an opportunity to assist in the development of a national strategy for the industry.

Conscious of the bottlenecks affecting the performances of the sector, EISAZ was well aware of the importance of undertaking a comprehensive value chain diagnostic, with the following objectives: (i) To identify key activities and incentives needed to specifically address value chain constraints; (ii) To enhance the role of EISAZ and private sector in the engineering iron and steel industry; (iii) To build and enhance sector knowledge and partnership between all the private and public actors in the sector.

To this end, through the support and facilitating action of ITC and thanks to the funds provided by the European Union, EISAZ led private sector actors and key stakeholders from the engineering and metals value chain in a series of participatory workshops during which we undertook a value chain analysis, with the identification and prioritization of our sector-specific issues and feasible goals and objectives.

The process also involved two key studies by the Scientific and Industrial Research and Development Centre (SIRDC) and the Zimbabwe Economic and Policy Analysis and Research Unit (ZEPARU). These studies provided the sector with a deeper understanding as well as a better qualitative and quantitative knowledge and analysis of the policy and technical issues affecting the competitiveness of our companies.

Those components have been successfully incorporated into this document. The strategy addresses and proposes a number of intermediate interventions required to exploit the opportunities that are dormant in the sector. It also puts together a step by step process of moving the sector to regional and international competitiveness.

I am pleased as the President of EISAZ of the strategic steps we are taking – steps that mark the beginning of a unique turnaround of the sector in the short to medium term period.

On behalf of the players in the Engineering and Iron and Steel Industry, I would like to take this opportunity to express my appreciation to the European Union for financing this project, the ITC for facilitating the program and the Ministry of Industry and Commerce for the sterling support they have given to this project. The strategy is a living document and therefore ongoing consultations will continue even during the implementation period.

A handwritten signature in black ink, appearing to read 'Zondi Kumwenda'.

Mr. Zondi KUMWENDA
PRESIDENT - EISAZ

14.10.2015

Vision of the Zimbabwe Engineering, Iron and Steel Industry

“To be a recognized leader in the sustainable production and supply of value added iron and steel products and engineering services”



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List of acronyms

AAZ	Automobile Association of Zimbabwe
ACMAZ	Automobile Component Manufacturers Association of Zimbabwe
AfDB	African Development Bank
AMA	Agricultural Marketing Authority
AMM	Association of Mine Managers
AMWUZ	Associated Mine Workers' Union of Zimbabwe
BAZ	Bankers' Association of Zimbabwe
CDP	Carbon Disclosure Project
CKD	Complete Knocked Down Kit
CMA	Chrome Miners' Association
CoM	Chamber of Mines
CPA	Chrome Producers' Association
CZI	Confederation of Zimbabwe Industry
ECZ	Engineering Council of Zimbabwe
EIS	Engineering Iron and Steel
EISAZ	Engineering Iron and Steel Association of Zimbabwe
EMA	Environmental Management Authority
ESAP	Economic Structural Adjustment Programme
EU	European Union
FAZ	Founders' Association of Zimbabwe
FGD	Focus Group Discussion
FM	Ferrous Metals
GATT	General Agreement on Tariffs and Trade
GDP	Gross Domestic Product
GMAZ	Gold Miners' Association of Zimbabwe
HIT	Harare Institute of Technology
IDBZ	Infrastructure Development Bank of Zimbabwe
IDC	Industrial Development Corporation
IDP	Industrial Development Policy
ISO	International Organisation for Standardisation
ITC	International Trade Centre
IVC	Industrial Value Chain
MDG	Millennium Development Goals
MIDC	Motor Industry Development Council
MIEAZ	Motor Industry Employers' Association of Zimbabwe
MMCZ	Minerals Marketing Corporation of Zimbabwe
MNC	Multi National Company
MOIC	Ministry of Industry and Commerce
MSME	Micro to Small and Medium Enterprises
MSMEs	Ministry of Small Medium Enterprises

MTAZ	Motor Trade Association of Zimbabwe
NECF	National Economic Consultative Forum
NEWU	National Engineering Workers' Union
NFM	Non Ferrous Metals
NRZ	National Railways of Zimbabwe
NSSA	National Social Security Authority
NTB	Non-Tariff Barriers
NUST	National University of Science and Technology
OECD	Organisation for Economic Co-operation and Development
OHSAS	Occupational Health and Safety Standard
PGMs	Platinum Group Metals
PPAZ	Platinum Producers' Association of Zimbabwe
PTC	Posts and Telecommunications Corporation
RBZ	Reserve Bank of Zimbabwe
RGM	Reference Group Meeting
SADC	Southern Africa Development Community
SAPP	Southern Africa Power Pool
SAZ	Standard Association of Zimbabwe
SCADA	Supervisory Control and Data Acquisition
SIRDC	Scientific and Industrial Research and Development Centre
TNC	Trans-National Companies
UDI	Unilateral Declaration of Independence
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organisation
UZ	University of Zimbabwe
VIC	Vertically Intergraded Companies
VW	Validation Workshop
WTO	World Trade Organisation
ZACE	Zimbabwe Association of Consulting Engineers
ZARWU	Zimbabwe Amalgamated Railway Workers' Union
ZECO	Zimbabwe Engineering Company
ZEPARU	Zimbabwe Economic Policy Analysis and Research Unit
ZERA	Zimbabwe Energy Regulatory Authority
ZESA	Zimbabwe Energy Supply Authority
ZEWU	Zimbabwe Energy Workers' Union
ZIE	Zimbabwe Institute of Engineers
ZIMDEF	Zimbabwe Manpower Development Fund
ZIMRA	Zimbabwe Revenue Authority
ZINWA	Zimbabwe National Water Authority
ZISCO	Zimbabwe Iron and Steel Company
ZNCC	Zimbabwe National Chamber of Commerce

EXECUTIVE SUMMARY

1. Context and importance of the sector

Since 2009, Zimbabwe's economy started to recover from a decade of economic crisis that saw economic output cumulatively declining by more than 45%. According to information obtained from the World Bank, Real Gross Domestic Product (GDP) grew by 20.1% between 2009 and 2011. This was supported by the strong growth recovery of domestic demand and government consumption. GDP growth was led by strong growth in mining (107%), agriculture (35%) and services (51%) while recovery in manufacturing sector (22%) has been less vigorous (National Trade Policy 2012 – 2016). Annual average inflation remained moderately at 5.1% in 2012 despite rising international prices of grain and oil. In the following years, under the multi-currency regime, inflationary developments, in the short to medium term, continued to be influenced by the USD/rand exchange rate, inflation developments in South Africa and local utility charges. Against the background of weak domestic demand, tight liquidity conditions and the recent appreciation of the US dollar against the South African rand, inflation was slightly negative in 2014, and it is projected to remain low in 2015 (African Economic Outlook 2014).

Despite the strong 2009-2011 economic rebound, GDP growth in 2012 moderated to an estimated 4.4% largely supported by mining. The rate of economic growth continued to slow down with a GDP growth of 4.4% in 2013 and 3.4% in 2014. The economic recovery in those recent years has been underpinned by the mining and agriculture sectors, which accounted for 93.5% of export revenues between 2009 and 2013. Mining, which made up 65.2% of export earnings over the same period, is a typical enclave sector, with weak linkages to the rest of the economy. It is also capital intensive, with limited employment creation opportunities. The GDP of manufacturing sector, which covers both engineering and chemical industries, grew by 17%, -4% and 14.4% in 2009, 2010 and 2011 respectively (Ministry of Finance and ZimStat, 2013). The sector registered then a drop in activity between 2011 and 2014: at least 4,610 companies closed down, resulting in a loss of 55 443 jobs (2015 Budget Statement). Capacity utilisation declined from an average of 57% in 2011 to 44% in 2012 and 39% in 2013 (CZI, 2013), and remains constrained by erratic power supplies, lack of capital, higher input costs, obsolete machinery and dilapidated infrastructure. Consequently, manufactured products have failed to compete both locally and internationally. Increasing presence of imported products on retailers' shelves poses potential competitive quagmire to the local industry when full scale production resumes again. On top of this, more than 80.0% of workers are now employed in the informal sector (African Economic Outlook 2014).

The Zimbabwean Engineering, Iron and Steel industry, like any other sector, significantly declined to its lowest ebb in 2008. During the period, several dominant actors like Zimbabwe Iron and Steel Company (ZISCO), Morewear Industries and National Railways of Zimbabwe (NRZ) amongst others, either closed down, reduced operations or relocated to other countries for their survival. The sector registered an overall deficit of about USD 3,3 billion in the period 2008 – 2012, translating into an average deficit of about USD 660 million per year. Exports constituted 41% (USD 7 billion) of trade, against 59% (USD 10 billion) imports. Exports were dominated by

primary metals and metal products over value added engineering goods from the Zimbabwean manufacturing sector.

Dollarization and the formation of the inclusive government brought hope to the collapsed sector as the surviving companies increased capacity utilisation from below 10% in 2009 to peaks of around 50% in 2011(National Trade Policy, 2012 – 2016). Liquidity challenges, strong competition from low cost imports from China, India and South Africa amongst several other challenges have resulted in a decline in capacity utilisation to around 36.9% (CZI, 2013), company closures and massive retrenchments. Despite the fact that prior to the decade of long economic melt-down, Zimbabwe had a vibrant and diversified engineering and metals sector which dominated the SADC region except for South Africa(The Zimbabwe Economy, 1987), the business environment has completely changed with the emergence of new technologies, products, globalisation and trade treaties amongst other macroeconomic factors.

Today, the Zimbabwean engineering, iron and steel sector has the potential to generate USD 14 billion for year in revenue the economy, if recapitalized (ZEPARU, 2013). This makes of the engineering, iron and steel value chain a potential backbone for Zimbabwe's economy.

2. Approach and Methodology used

The strategy development process was facilitated by ITC in implementation of component 2.1.8 of European Union Funded TPSDP: "Develop a Strategic Plan for the revival of the engineering Iron and steel sector. TPSDP seeks to support the economic recovery, economic diversification and poverty reduction in Zimbabwe by enhancing the role of private sector and intermediary organizations and strengthening the capacity of all the actors involved in the programme.

A participatory stakeholder based approach was used whereby representatives from the entire value chain, including enterprises, supporting institutions and Government worked together to identify the main issues affecting the engineering iron and steel value chain and proposed response objectives on the basis of policy framework, market priorities and development objectives. This methodology has fostered a mechanism where the private sector became the actor and the public sector the facilitator: the strategy thus responds to the private sector's needs and commercial targets while contributing to the overall national and regional development priorities.

The strategy is consistent with national development policies (National Trade Policy (NTP) and Industrial Development Policy (IDP) 2012-2016) for revitalizing Zimbabwe's economy, in alignment with TPSDP's design and goals and coherent with ITC strategy. Consequently, a special focus was on the promotion of SMEs' trade and the capacitation of Intermediary Organizations, business associations and umbrella organization working in trade, private sector development and SMEs issues.

The engineering, iron and steel sector strategy is the result of stakeholders' evaluation of market potential, profitability of business, supply-side constraints and sector dynamics. The work done by sector stakeholders falls within the logic of public-private partnership and dialogue. The data used in the analysis, as well as its results, were validated at all stages by value chain stakeholders, representing all the key players in the sector, through participatory workshops and focus group meetings. Based on the decision of the stakeholders and in alignment with the requirements of TPSDP, two sector studies were commissioned during the process to the Scientific and Industrial Research and Development Centre (SIRDC) and the Zimbabwe Economic Policy Analysis and Research Unit (ZEPARU). The two studies, building on the outputs of the Participatory Workshops held in April and July 2015, respectively had the mandate of:

- Assessing SMEs competitiveness in the Engineering, Iron and Steel Sector, as resulting from the administration of a specific survey to a sample of enterprises selected in a participatory manner by the sector stakeholders, with the aim to identify market support and business development services required to build their capacity;
- Identify enabling and inhibiting macro, policy, market and supply issues that impact the competitiveness of the Engineering, Iron and Steel Value Chain, based on the policy-related value chain constraints and bottlenecks prioritized by EISAZ and public and private stakeholders during the participatory workshops.

The sector studies have been participatory validated by the sector in September 2015. They provided a solid and empirical base to the elaboration of the key strategic interventions included in the strategy, and have been incorporated into this document.

The identification and prioritization of the strategic objectives for the sector, as well as the elaboration of the activities and interventions instrumental to the achievements of the strategic goals have been developed by four participatory public-private working groups. The working groups spontaneously formed during the first workshop held in April 2015. Under the lead of EISAZ, each working group had a specific area –and a related goal- to focus on:

- Advocacy - Goal: Develop voice and visibility for the sector by strong advocacy to achieve coherent policy, address macro issues that compromise the sector's competitiveness and priorities issues of strategic significance;
- Business Support - Goal: Develop a strong network of business support services that addresses the sector needs and priorities;
- Human and technical Capital Development - Goal: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity;
- Value Chain Governance - Goal: Develop a governance model that ensures the institutional linkages are relevant and robust for the sector and its stakeholders, thereby achieving unity of purpose.

The metrics of activities elaborated from the working groups were validated by the stakeholders during a participatory workshop held in Harare in September 2015.

The data, mind maps and analysis proposed in this strategy are a major contribution to existing sectoral knowledge and result from fostered partnerships between the private sector, support institutions and the Government for improving decision-making.

3. The Engineering Iron and Steel Value Chain – Brief overview

The engineering iron and steel value chain under study is summarized in Figure 1 below. The diverse engineering subsectors are involved in a wide range of transformational activities aimed at coming up with a range of value added iron and steel products.

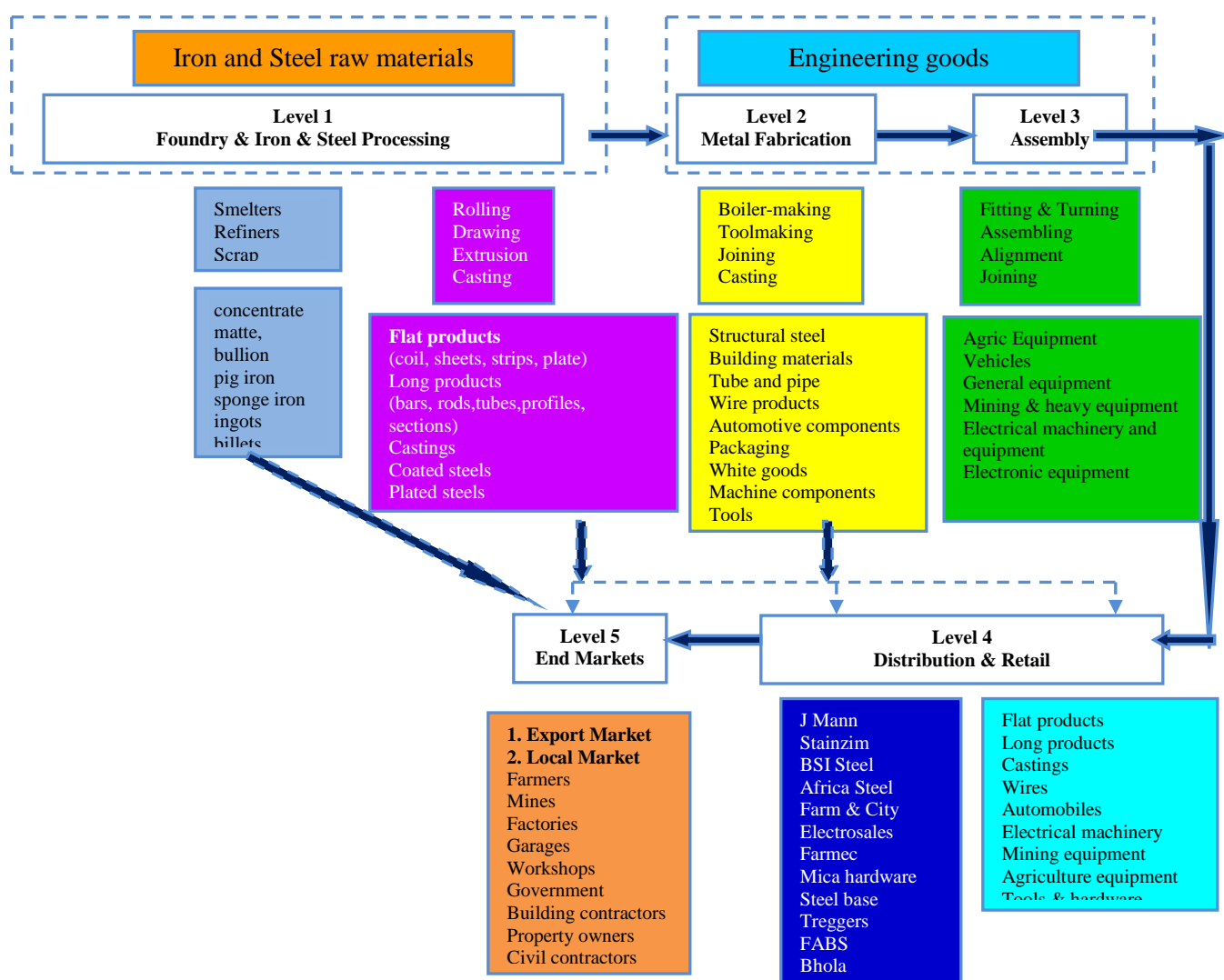


Figure 1: Engineering Iron and Steel Value Chain Stages (Source: Engineering and Metals Value Chain Country Study, Zimbabwe, 2014)

The transformational activities (casting, fabrication, forging, stamping, extrusion, etc) utilise iron ore and raw steel and their intermediary products, energy, water, technology and speciality skills to produce the classified products (*ITC & COMTRADE: www.trademap.org*) presented in *Table 1*.

Table 1: Engineering products categories (Source: www.trademap.org)

Code	Engineering Product Category
82	Tools, implements, cutlery, etc
84	Machinery, nuclear reactors, boilers, etc
85	Electrical, electronic equipment
86	Railway, tramway locomotives, rolling stock equipment
87	Vehicles other than railway tramway
88	Aircraft, spacecraft and parts thereof
89	Ships, boats and other floating structures
90	Optical, photo, technical, medical, etc apparatus
91	Clocks and watches and parts thereof
92	Musical Instruments, parts and accessories
93	Arms and ammunition, parts and accessories thereof

The studies and the Value Chain analysis undertaken in the framework of the development of this strategy have a special focus on assessing the engineering iron and steel manufacturing Sector in Zimbabwe as defined by the Government of Zimbabwe through the Small Enterprises Development Corporation (SEDCO) *Amendment No. 6 of 2011, Fourth Schedule (section 2)* as shown in *Table 2* below.

Table 2: Classification of Micro, Small and Medium Enterprise in Zimbabwe

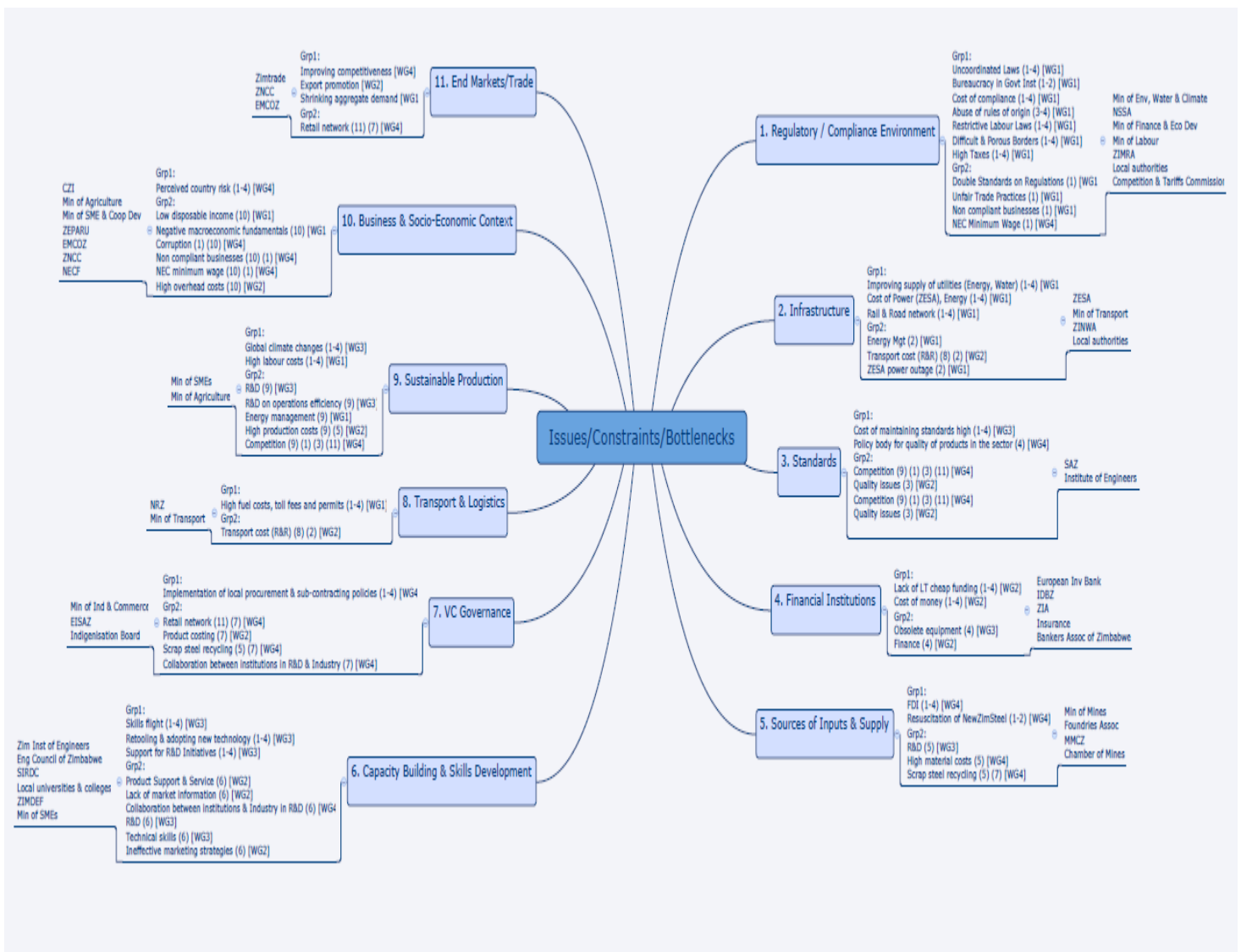
Sector or Subsector	Size or Class	Max. No. Of Fulltime paid employees	Max. total annual turnover (USD)	Max. gross value of assets (excluding immovable property) (USD)
Manufacturing	Medium	75	1, 000, 000.00	1, 000, 000.00
	Small	40	500, 000.00	500, 000.00
	Micro	5	30, 000.00	30, 000.00
Construction	Medium	75	2, 000, 000.00	2, 000, 000.00
	Small	40	1, 000, 000.00	1, 000, 000.00
	Micro	5	50, 000.00	50, 000.00
Services	Medium	75	1, 000, 000.00	500, 000.00
	Small	30	500, 000.00	250, 000.00
	Micro	5	30, 000.00	10, 000.00
Retail	Medium	75	1, 000, 000.00	500, 000.00
	Small	30	500, 000.00	250, 000.00
	Micro	5	30, 000.00	30, 000.00

It was generally noted that the Engineering Iron and Steel Value Chain of Zimbabwe had significantly scaled down due to the prevailing economic environment and hence the actors once classified under large enterprises were also considered for the survey.

4. The Strategy

A participatory process based on four workshop interventions, which commenced in April and concluded in September 2015, identified 11 key challenges facing the sector, as highlighted in Figure 2 below:

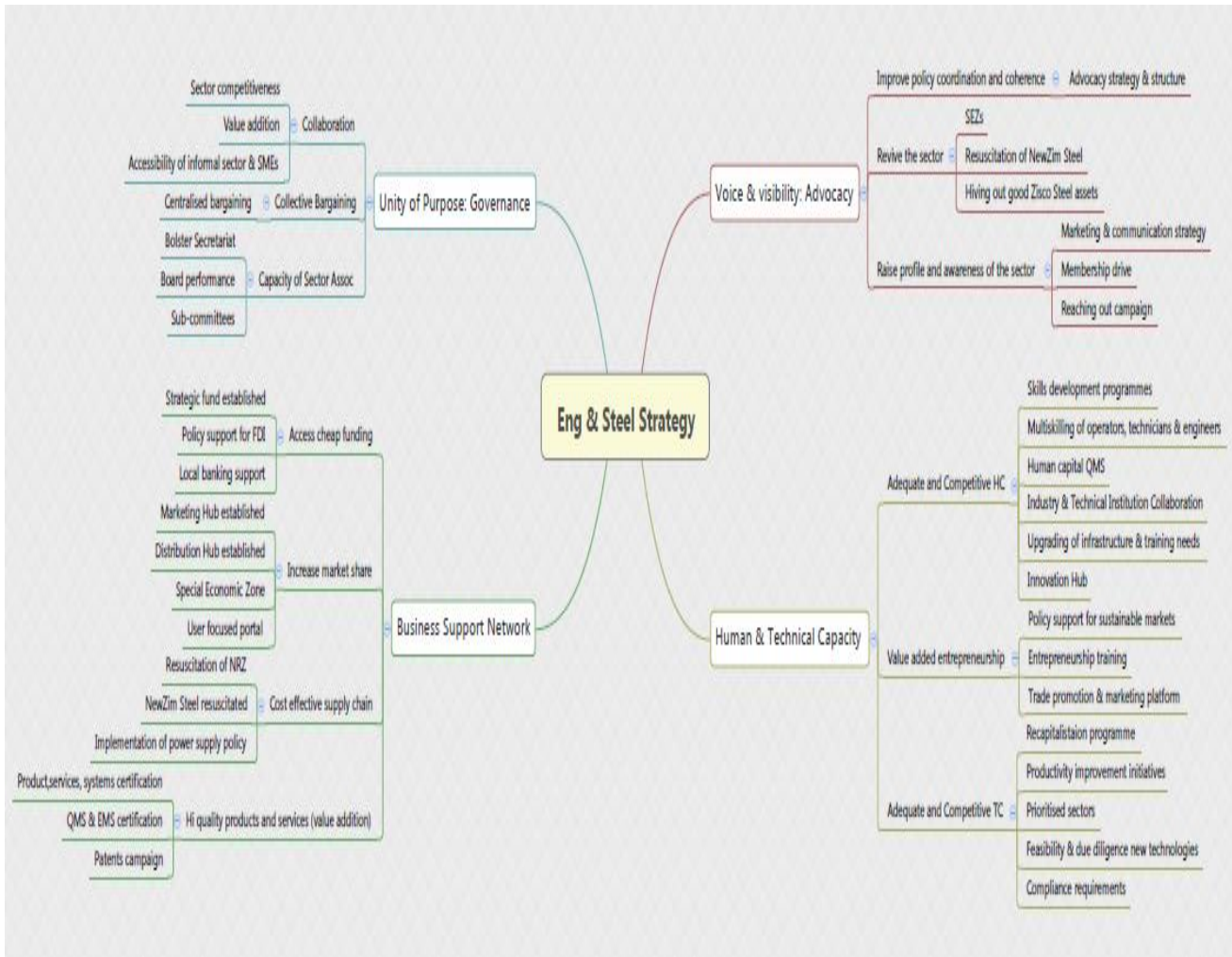
Figure 2: Key Challenges



Whilst the sector faces many challenges and at times they might seem insurmountable, there is also a sense of optimism in the sector that it can, given the right opportunities for revival, make a profound change to revitalizing the economy of the country, given the linkages that it enjoys with all

other sectors. In the short-term, the impact on agriculture, mining in particular as the sector itself through a focus on renewable energy alternatives should be vigorously pursued. Four goals for the sector have been identified, with the supporting objectives and strategic initiatives, summarised in Figure 3 below:

Figure 3: Objectives and Initiatives



The sector has prioritised the following six pillars as having immediate impact:

1. Skills and Efficiency enhancement to Sector SMEs: This to be pursued through direct training and a training of trainers in Lean Manufacturing Approach, with a focus on Lean Market Start-up and Production Efficiency.
2. Market Studies and Competitiveness: This with a focus on Market demand (which products in which –domestic, regional, international – markets), the cost of doing business and a competitiveness benchmarking with the South African sector.
3. EISAZ's capacity development: Empower the sector Association on Marketing, Advocacy and Lobbying skills in order to enable it to be the leading driver for the revival of the sector.

4. Cluster Development: With a focus on the expanding informal sector, which have been confirmed by the Sector Studies to be a critical actor, which the country needs to mainstream with the formal economy to revitalize the competitiveness of the Value Chain.
5. Skills upgrading: This in partnership with support institutions and universities to employees from the EIS sector.
6. Opportunity enhancement: Specifically exploring ways that the sector can contribute to and benefit from the expansion and diversification of energy supply to the country, with a focus on alternative and renewable energy sources, such as solar, wind and hydro.

In implementing these, the sector players believe that this would set a strong foundation for the achievement of the stated vision, namely:

“To be a recognized leader in the sustainable production and supply of value added iron and steel products and engineering services”.

The key interventions and priorities identified in the Strategy are summarized in the condensed version of the Matrix of Goals, Objectives, Strategic Initiatives and Activities on the next page.

The detailed strategy can be found in Chapter III of this document.

Vision: To be a recognized leader in the sustainable production and supply of value-added iron and steel products and engineering services				
Goals	Objectives	Measures	Targets	Initiatives
Unity of purpose (Governance)	Enhanced collaboration	<ol style="list-style-type: none"> 1. Internationally competitive steel supplies 2. Extent of value addition 3. Level of formal & informal sector integration 	<ol style="list-style-type: none"> 1. Price & quality parity by 2020 2. 75% of value addition 3. Tax base doubled 	<ol style="list-style-type: none"> 1. Competitiveness by the sector for the sector and the country 2. Value addition for priority sectors 3. Informal sector mainstreaming
	Constructive collective bargaining	<ol style="list-style-type: none"> 1. Number of successful negotiations 	<ol style="list-style-type: none"> 1. 100% achieved 	<ol style="list-style-type: none"> 1. Centralized bargaining
	Strong EISAZ	<ol style="list-style-type: none"> 1. Number of additional services 2. Good governance principles & practices applied 3. Sector strategy implemented 	<ol style="list-style-type: none"> 1. Two per annum 2. KPIs at Governance, Board and Operational levels 3. M&E by milestone 	<ol style="list-style-type: none"> 1. Bolster secretariat 2. Regular performance reviews 3. Stratcomm established
Voice and Visibility (Advocacy)	Policy coordination & coherence	<ol style="list-style-type: none"> 1. Efficient service delivery 	<ol style="list-style-type: none"> 1. Advocacy committee 	<ol style="list-style-type: none"> 1. Advocacy strategy and structure
	Revive the sector	<ol style="list-style-type: none"> 1. Increased volumes and variety 	<ol style="list-style-type: none"> 1. Statement of Intent and National Work Plan 	<ol style="list-style-type: none"> 1. SEZs 2. Resuscitation of NewZim Steel 3. Hiving out of good Zisco Steel assets 4. Reliable and economic electricity supply 5. Coordinate trade promotion and export development strategy
	Publicity & awareness	<ol style="list-style-type: none"> 1. Sector visibility 2. Membership numbers 3. Relationship with other bodies 	<ol style="list-style-type: none"> 1. Brand recognition 2. Increase base 20/20/20 (20% pa until 2020) 3. Formal membership/MOUs 	<ol style="list-style-type: none"> 1. Marketing and communication strategy 2. Membership drive 3. Reaching out campaign to other associations
Strong network of support services (Business Support)	Access to long term cheap finance	<ol style="list-style-type: none"> 1. Availability of finance at competitive rates 2. Improvement in ease of doing business 3. Number of local banks supporting sector 	<ol style="list-style-type: none"> 1. - \$4.5bn @ LIBOR+1% - 30%/50% EISAZ members 2. Move to below 150 3. At least 50% 	<ol style="list-style-type: none"> 1. Strategic fund for sector established 2. Policy support for ease of access to FDI 3. Local banking support initiative
	Increase market share	<ol style="list-style-type: none"> 1. Volumes 2. Number of distributors 3. Quantities from SEZs 4. Website portal hits 	<ol style="list-style-type: none"> 1. – Increase capacity utilisation to 50% - 50% EISAZ members participating in fairs 2. Increase 20/20/20 3. 15% annual increase of exports 4. 100% accessibility to portal by EISAZ members 	<ol style="list-style-type: none"> 1. Marketing Hub for Sector formalised 2. Distribution Hub for Sector formalised 3. Special Economic Zone established 4. User focused portal established

Table 3: Consolidated Metrics

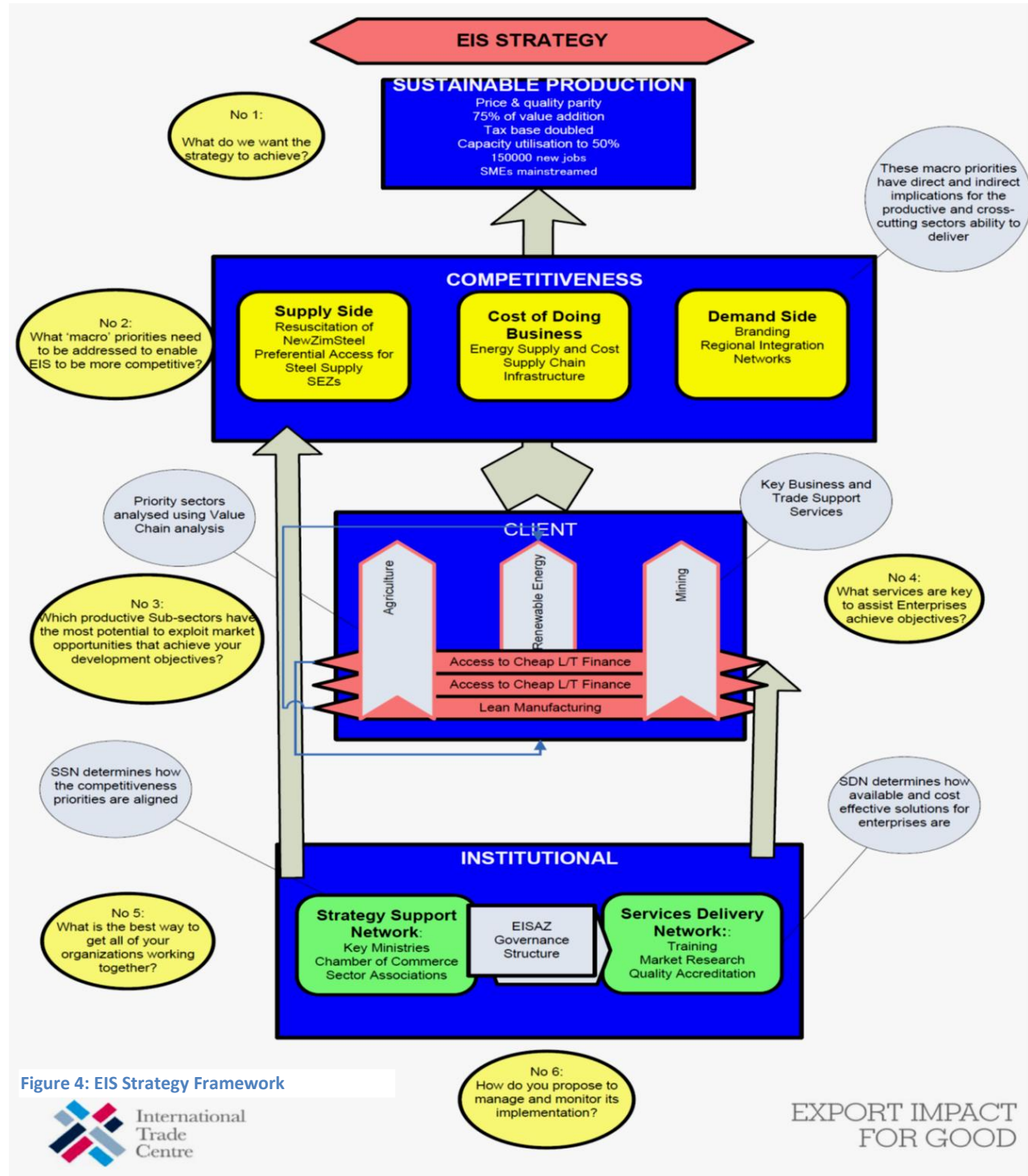
Goals	Objectives	Measures	Targets	Initiatives
Strong network of support services (Business Support) (cont)	Cost effective supply chain	<ol style="list-style-type: none"> 1. Cost and efficiency of transportation 2. Local steel supply 3. Power supply and cost 	<ol style="list-style-type: none"> 1. 500% increase in rail volume 5 years 2. Increase local supply from 40% to 80% 3. Increase supply 100% Reduction in cost 50% 	<ol style="list-style-type: none"> 1. Rail network resuscitated 2. NewZim Steel resuscitated 3. Implementation of power supply policy
Adequate Human & Technical Capacity (Human & Technical Capacity)	Adequate & relevant human capital	<ol style="list-style-type: none"> 1. Productivity 2. Labour utilisation 3. Quality of products and services 4. Skilled personnel 5. Capacity of technical training institutes 6. Innovation 	<ol style="list-style-type: none"> 1. Comparable labour cost/unit 2. 80% Labour utilisation 3. Products regionally and internationally competitive 4. 90% skills match 5. - Suitable infrastructure & equipment - Number of shared facilities - Suitably qualified training staff - Number of regional and international collaborations 6. Number of commercialised innovations 	<ol style="list-style-type: none"> 1. Skills development programmes 2. - Multiskilling of operators, technicians & engineers - Production improvement initiatives (Lean) 3. - Human capital quality management systems - Special skills Development Centres for potential and existing exporters 4. - Industry & Technical Institution collaboration - Development of talent pipeline for sector 5. - Upgrading of infrastructure & training needs - Link facilities industry and training institutes - Continuous assessment - Formalise collaboration agreements with international and regional providers 6. - Inter and Intra Sectoral Collaboration for an Innovation Hub - IP and Patenting Awareness & Training
	Valued added entrepreneurship	<ol style="list-style-type: none"> 1. Formal employment level 2. New enterprises, products & services 3. Revenue generated in the sector 	<ol style="list-style-type: none"> 1. Increasing employment levels by 40% by 2018 2. Growth in new enterprises 20%pa by 2020 3. \$1bn from SME sector by 2018 	<ol style="list-style-type: none"> 1. Policy support for sustainable markets 2. - Entrepreneurship business development training - Review of labour laws - Value chain linkages & other clusters 3. - Trade promotion and marketing platform - Formalisation of informal sector
	Adequate and relevant technical capacity	<ol style="list-style-type: none"> 1. Productivity 2. Cost of production 3. Increased capacity 4. ROI 	<ol style="list-style-type: none"> 1. Improved output/factor of production 2. Improved margin/fop 3. - Improved Capacity Utilisation - Increased market share 4. Reduction of payback period 	<ol style="list-style-type: none"> 1. Upgrade obsolete technologies 2. Productivity Improvement Initiatives (Lean) 3. Prioritised sectors with high impact 4. Feasibility and Due Diligence on New Technologies 5. - Assessment of compliance requirements

Trade and Private Sector Development Programme (TPSDP) in Zimbabwe
A programme funded by the European Union

		5. Quality standards & compliance	5. Compliance to requirements	<ul style="list-style-type: none"> - Certification of SMEs and products (ISO etc) - Rationalised testing facilities
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5. Management framework

The diagram below shows the framework for coordination as well as a visual overview of the Strategy. With a focus on the components enabling competitiveness for the sector and the issues that the Strategy addresses as a result of the participatory process that led to its elaboration.



CHAPTER I: DIAGNOSIS OF THE ENGINEERING IRON AND STEEL VALUE CHAIN SECTOR

1. Background

This chapter provides input to the Engineering Iron and Steel sector strategy development. It is a summary of the findings of the study that was commissioned by ZEPARU in 2014 on the Engineering and Metals value chain. Building of the value chain study, it highlights the policy inconsistencies that are affecting the Engineering Iron and Steel sector and provides some recommendations on how to improve the sector's performance and value addition.

2. Key issues from the ZEPARU Engineering and Metals Value Chain Study

In 2014, the Zimbabwe Economic Policy Analysis and Research Unit (ZEPARU) produced a study entitled, "Engineering and Metals Industry Value Chain Analysis"¹, which had been commissioned to the Scientific & Industrial Research and Development Centre (SIRDC). The broad objective of the diagnostic study was to make an assessment and map the viability of value chains in selected subsectors of Zimbabwe's engineering and metals industry with the goal of identifying policies, measures or strategies to enhance competitiveness of the industry. The objectives of the study included the following:

- To provide the complete picture of the engineering and metals value chain from mineral processing to the end market;
- To describe the current situation in the engineering and metals value chain sector;
- Identify specific dynamics in the value chain, induced or automatic by government or development agents;
- Identify constraints, technological and market opportunities relating to the engineering and metals value chain; and
- Provide recommendations for policy making and implementation.

This section provides a summary of the main findings from the study, from which this study will build on to come up with more concrete recommendations on how the engineering, iron and steel value chain can be enhanced through policies and strategies.

2.1 Challenges

The ZEPARU study showed that there were several issues that were common across the different subsectors in the engineering and metals industry. These issues included low and declining capacity utilisation; uncompetitive technologies on the regional and international market; insignificant export market share for products; lack of foreign demand for products; insufficient production capacities; high cost of transport; low levels of collaboration between industry and national research and development institutions; little relevance of local research and development to sector needs; lack of access to cheap finance; poor compliance to

¹ZEPARU Occasional Paper No.02/14

international standards; tax rates and administration obstacles; corruption and labour and health issues. The study also outlined some sector specific challenges and strategies which could help enhance performance at the metal processing, metal forming, metal fabrication and capital goods stages (Table 2).

Table 4: Sector Specific Challenges and Strategies

	Challenges	Strategies
Metal Processing (Level 2)	<ul style="list-style-type: none"> • High cost of power (chrome sector) • High domestic costs • Limited technology (chrome sector) • High tax rates • Labour regulations & health issues • Corruption and Political Instability • Dominance of few actors 	<ul style="list-style-type: none"> • Increase production capacity- raw materials and good quality inputs are available from local suppliers. • Increase export volumes taking advantage of the high levels of compliance with relevant international and local certification authorities, and the country's export competitiveness • Improve capacity utilisation • Metals local beneficiation to value added refined and finished products • Increased participation of MSMEs • Use improved and energy efficient smelting technologies
Metal Forming (Level 3)	<ul style="list-style-type: none"> • High transport cost • Power and water outages • Lack of raw materials • Antiquated machinery and breakdowns • Low local demand • Working capital constraints • Lack of access to cheap finance for recapitalisation • Products not competitive on the regional and international market • Corruption • Political instability • Tax administration and rates • Practices of competitors • Low rate of compliance to standards 	<ul style="list-style-type: none"> • Resuscitation of iron and steel industry through technology upgrade • Use improved and energy efficient technologies • Increase production capacity taking advantage of the availability of high quality raw materials locally • Improve capacity utilisation • Improve product competitiveness on the regional and international market taking advantage of the availability of high quality raw materials locally • Improve local and regional product demand • Greater participation of MSMEs • Compliance to local and international standards • Formalise the Scrap Metal industry
Metal Fabrication (Level 4)	<ul style="list-style-type: none"> • Working capital constraints • High costs of doing business • Limited local supplies of inputs • Power and water outages 	<ul style="list-style-type: none"> • Greater participation of MSMEs • Import substitution • Increase Production Capacity • Improve capacity utilisation.

	<ul style="list-style-type: none"> • Inferior technologies • Low demand of products on the export market • Insufficient production capacity to expand exports • High cost of transport • Low levels of compliance to international standards • Labour regulations and health issues • Tax rates and administration • Corruption • Political Instability 	<ul style="list-style-type: none"> • Export market growth • Certification and compliance to international standards • Application of competitive technologies • Regional and international market linkages
Capital Goods (Level 5)	<ul style="list-style-type: none"> • High dependence on imported raw materials • High production costs • Inferior technologies • Lack of raw materials • Antiquated Machinery and Breakdowns • Power and Water Outages • Low product demand • Tax administration and rates • Competition from low cost imports • Working capital constraints • Lack of financing mechanisms • Corruption • Practices of informal sector • Labour regulations and health issues 	<ul style="list-style-type: none"> • Import Substitution • Improve Capacity utilisation • Increase production capacity • Expansion and growth of export market • Product range expansion • Accreditation and compliance to international standards • Apply Competitive technologies • Encourage greater participation of MSMEs • Establish regional and international market linkages
Other	<ul style="list-style-type: none"> • Low relevance of local research and development to industry needs • Low levels of collaboration between national, regional and international research and development and industry needs 	<ul style="list-style-type: none"> • Cluster development and interlinkages with the agro, diamond and the chemicals industry • Infrastructure development • Human capital development • Technology transfer • Innovation

2.2 Policy Issues

The success of the engineering and metals sector of Zimbabwe is heavily dependent on the enabling environment created by government policies and strategies. Government policies that support the engineering and metals sector include the:

- Industrial Development Policy
- National Trade Policy,
- Science, Technology and Innovation Policy,
- Minerals Development Policy (draft),
- National Procurement Policy (draft),
- Indigenisation and Economic Empowerment Policy, and
- Local Authority Licensing and Regulatory Policies.

Furthermore, the Zimbabwe Agenda for Sustainable Socio-Economic Transformation (ZimAsset) 2013-2018 and the Ten Point Plan announcement by the President of Zimbabwe during his State of the National Address on 25th August, 2015 set the policies thrust that provides pointers to the opportunities that should be exploited by players in the sector. The following sections provide further analysis of the National Trade Policy (NTP) and the Industrial Development Policy and their interlinkages.

2.2.1. The National Trade Policy

The policy objectives of Zimbabwe National Trade Policy Document 2012-2016 are to achieve annual export growth rates of 10% to reach a target of USD 7 billion by 2016; promote value addition of primary commodities and hence improve manufacturing sector contribution to export earnings from 16% to 50%; and to consolidate and expand existing markets as well as to explore new markets in the region.

The key drivers of this policy are as follows:

Export led Industrialisation

The Export-led Industrialisation strategy is designed to open access by local firms to deeper regional and international markets. This policy strategy inevitably requires local firms to increase production plan and improve quality standards to meet both local and export markets requirements. In this regard the low domestic demand due to the small size of the domestic market.

The GoZ strategy of developing value addition linkages and clusters, backed by SMEs support programmes is expected to grow the exports, create employment and minimise the trade deficit and increase fiscal revenues.

Export Development and Promotion

The Export Development and Promotion Program seeks to consolidate and expand traditional export markets, explore and develop new markets; diversify and promote the country's exports through the Duty Drawback System which offers rebates on raw materials imported for local value addition as well as the retention of export earnings for exporters.

The policy also seeks to facilitate funding for companies in the special processing zones to improve production capacity. The policy also mentions Export Credit Reinsurance Fund and the willingness to join the African Trade Insurance Agency (ATI), a COMESA institution which provides export credit, political risk and investment insurances. Successful

implementation of this policy will attract both foreign and local investors as well as financial institutions in capitalising the distressed engineering and metals sector.

Regional and Multilateral Trading Arrangements (RMTA)

Zimbabwe is signatory to the RMTA comprising of bilateral, regional, and multilateral trading arrangements, which include SADC, COMESA, the ACP-EU Partnership Agreements, and the World Trade Organisation. The engineering and metals sector can take advantage of the existing bilateral, regional and international trading arrangements which offer duty-free and quota-free market access in order to improve export performance. However, stiff competition from South Africa and low cost producers in the BRIC, Asia, Japan and Europe works against Zimbabwe. The country can therefore negotiate for a Special Safeguard Mechanism (SSM) and designation of Special Products (SPs) for developing countries since the RMTA can actually lead to the total collapse of the engineering sector. Already, there is a global excess of steel products as shown from the study results.

Strategic Trade Policy Instruments

The Strategic Trade Policy Instruments include Tariff-Based Instruments, Non-Tariff Measures, Trade Defence Mechanisms and Trade Development Instruments which are envisaged to stimulate domestic production, promote value added exports and safeguard domestic industry and consumers against unfair trade practices.

The National Trade Promotion vehicles aimed at trade facilitation include:

- Zimbabwe International Trade Fair (ZITF) and ZimTrade.
- One-Stop-Border-Post: The policy also aims at streamlining and simplifying exporting and importing procedures, eliminating customs delays and improving customs administration which resulted in the successful establishment of the Chirundu One-Stop-Border-Post. The engineering and metals sector is therefore expected to benefit from policy induced infrastructure development required to transform the traditional border posts to One Stop Border posts.
- The Buy Zimbabwe Initiative contained in the policy document is aimed at promoting the use and consumption of locally manufactured goods and services. Subsectors such as the engineering consultancy firms and Levels 3 to 5 that do not require complex technologies and large capital investments are expected to benefit from the policy instrument.

Trade Defence Mechanisms (TDMs) are important considering the influx of cheap low quality imports of engineering and metal products. The implementation of the TDMs like Anti-Dumping and Countervailing duties is necessary to correct the competitive imbalances created by unfair trade practices threatening the collapse of strategic sectors like the iron and steel, automobile and the capital goods sector.

The proposed Zimbabwe Quality Standards Regulatory Authority is a necessary vehicle to protect the domestic industry as well as to improve the competitiveness of the local production sector. Industry players need to explore the opportunities for improving competitiveness within the framework set up by the proposed quality standards and regulatory authority. There is also need for EISAZ to consider the TDMs applicable to the sector to safeguard the interest of players in the industry.

2.2.2 Industrial Development Policy (IDP) 2012-2016

The overall objective of the IDP is to restore the manufacturing sector's contribution to GDP of Zimbabwe from the current 15% to 30% and its contribution to exports from 26% to 50%

by 2015. An average real GDP growth of 15% was targeted under this Policy Framework of 2012-2016. Some of the strategies identified in the IDP include:

- i. **Industrial financing:-** the strategy seeks to establish dedicated financial mechanisms through the re-modelling or restructuring of existing institutions dedicated to financing medium and long term recapitalization of industry
- ii. **Lines of credit:** the strategy seeks to identify additional lines of credit of a medium to long term nature and make them available to industry on priority basis. This is meant to finance the procurement of raw materials, packaging materials, production consumables, laboratory chemicals, spare parts, repairs and maintenance of plant and equipment and other working capital costs.
- iii. **Distressed Strategic Companies:** As a short term measure, the Government envisages to initiate revival packages for Distressed Companies with a clear-cut exit policy on the basis of a revolving fund.
- iv. **Review of Import Tariffs:** The strategy seeks to review the import tariffs structure on the customs duty and VAT on industrial raw materials and packaging to level the playing field for locally produced goods.
- v. **Trade Policy:** A key strategic component of the IDP is the trade policy which will be advanced by National Trade Policy which support trading environment to maximize attractiveness of Zimbabwean products in the region and globally.

2.2.3. The Indigenisation and Economic Empowerment Policy (IEEP)

The study showed that there were misconceptions about IEEP. The law was also perceived as an impediment in attracting foreign direct investment for the capital intensive mining and minerals processing and refining stages of the engineering and metals value chain². In the 2014 and 2015 National Budget Statements pp 99 to 102 and 2015 to 2017 respectively government sought to provide further clarification on Indigenization and Economic empowerment on the interpretation of the law. However, the main challenge has not been with the law per se but consistency in the interpretation and application of the law. Consistency in policy pronouncements, interpretation and practical application of the law enhances predictability and credibility of Government policy as it engages with diverse stakeholders including investors (both foreign and local). Government also recognizes that compliance with the 51/49% threshold may not be achieved overnight. In this regard government noted within the 2014 budget statement that the period necessary for compliance with the law will be a matter for negotiation between the would-be investor and the respective/ relevant line Ministry responsible for the particular sector/sub-sector.

The EISAZ needs to undertake a comprehensive review of the Indigenisation and Economic Empowerment Act and the subsidiary statutory instruments and the implementation of the law to date to have an informed position on the benefits and costs of the law to prospective investment in the sector. A useful source of information and analysis is the Business Council of Zimbabwe (2011) commissioned study on indigenisation and Economic Empowerment (IEE) in Zimbabwe. This study is informing the new thinking on the revision of the Policy into a Broad Based Economic Empowerment Policy Framework. The EISAZ advocacy strategy on the subject of Indigenisation and Economic Empowerment needs to be

²In an article entitled "Indigenisation can co-exist with FDI" in the Herald, 19 September 2015, p.5 and 8, the new Minister of Youth Development, Indigenisation and Economic Empowerment articulates his views highlighting that indigenisation and FDI are not opposites. The article noted that he believes indigenisation can work quite well with FDI.

anchored on the evolving thinking on the policy; policy clarifications offered by government and the practical application of the law in the sector.

2.2.4. ZimAsset and the Engineering and Metals Value Chain

The engineering and metals sector cuts across the four clusters although the highest impact of the sector is in the Value Addition and Beneficiation and Infrastructure and Utilities clusters. Nevertheless, the engineering and metals sector contributes to the Food Security and Nutrition Clusters through supporting agricultural mechanisation and agro-processing equipment, whilst the Social Services and Amenities Cluster is supported through activities like construction, service and maintenance of public amenities including water and sanitation infrastructure; energy and power supply and Information and Communication Technology (ICT).

One of the key strategies in ZimAsset is to improve the business operating environment through fostering of the alignment and coordination of sectorial policies to deliver on the objectives of ZimAsset. In this regard the ESIAZ can engage government on areas where they feel there are policy inconsistencies that hamper the viability of ESI industries. Policy consistency and cohesion are critical to improving investor confidence and long term planning in the sector. The pre-budget consultations for example offer an opportunity for the ESIAZ to provide a position paper that outlines the status quo and pro-offers policy proposals that can foster growth and transformation of the sector which is critical for the overall development of the country. In part the policy proposal could include the type of support required to revitalise the ESI value chain.

2.3 Strategies required for the revival of the sector

The study acknowledges the existence of government policy documents that outline well-meaning policy intentions to support the growth of different sub-sectors of the economy including the engineering and metals sector sub-sector. However the missing link with most policies has been the timeous and consistent implementation of these policies. This could be attributed to a number to a number of factors including inadequate fiscal revenue; lack of commitment to implementation plans and capacity challenges among others. The ESIAZ can also engage government within the context of the Public Private sector Partnership framework to work with government to resolve some of the binding constraints affecting the sector especially capacity related challenges. For example experienced and retired engineers can be mobilised to assist in the development of some government projects that are a major source of demand for the service of players in the ESI sector. Supporting the mobilisation of the requisite skills from retired members of the professions serves to transfer knowledge and wisdom to the upcoming engineers; entrepreneurs and practitioners in the sector. Some of the proposed strategies required to revive the sector identified in the study include the following:

Enhancing Local Content in procurement and other value added services

Local producers have the potential to provide competitive products. Deliberate efforts can be made to support and enhance the participation of local expertise in engineering consultancy in both brownfield and green-field projects especially in mega projects. Formalisation of the Scrap Metal Industry can improve the supply of inputs in the engineering and metals value chain. Engagement with the indigenisation and economic empowerment processes can be

framed within the context of local content provisions and proposals. Local procurement policies can also help in developing local suppliers to international standards and participate in regional as well as global value chains.

Capacity Development based on International Best Practice

To achieve ZimAsset goals of export oriented manufacturing sector growth, capacity development must be targeted and aligned to the regional and international needs. In this regard capitalisation initiatives in the sector should focus on the adoption of low cost, energy efficient and sustainable technologies that improve the competitiveness of local products in the export markets. Capacity development of players in the iron and steel, chrome and automobile value chains can enable them help them to adopt international best practices and production technologies. Local entrepreneurs need to invest in acquiring knowledge and skills that give them a competitive edge in product development, research and development, and utilisation of state of the art technologies. Collaboration with consultancy firms, development partners who support capacity building to strengthen the private sector can enhance the growth of the ESI industries. For example capacity to undertake proper technological due diligence is critical when spending huge sums of money to acquire new technologies. Furthermore the ESIAZ can forge collaboration with local training institutions i.e. Universities and Polytechnics to develop curriculum that responds to the skills needs of the players in the ESI to enhance the functionality of graduates coming out of these institutions as well as offering opportunities for gaining practical experiences for students on attachments. Technology transfer should always be embedded in contracts of between large and small engineering firms for any green-field and brownfield projects to guarantee sustainability.

Promoting technological advancement and innovation

Innovation in the engineering and metals sector needs to be incentivised. Recognition and rewarding initially through the educational system; research and development institutions; industry professional bodies and practitioners in the industry of innovators is critical for technological advancement and innovation. Government policies are promoting science education which forms the basis of technological advancement and innovation. However, beyond the academic qualification there is need for policy and financial support for research and development that fosters technological advancement and innovation. For example, building linkages with University based research departments; industry professional bodies and practitioners in the field will enhance the relevance of the research to redress technological and innovation gaps in the industry. ESIAZ can play a co-ordinating role to promoting these linkages. Value addition and beneficiation, which is a key pillar of ZimAsset, offers wide opportunities for leveraging on technology to provide innovative solutions. The energy and power deficit affecting the country require innovative solutions for efficient energy use and demand management. Collaboration of ESIAZ and ZESA can assist players in the industry, particularly the heavy energy users to invest in innovative energy saving technologies. In the iron and steel sector, innovation into competitive small scale primary steel production has the potential to guarantee self-sufficiency without the need for economies of scale.

Champions to spearhead export growth

In a multi-currency environment growth in exports is a key channel for injecting new money into the system. ESIAZ in its position papers to government it can identify and highlight the binding constraints affecting export performance of the sector. These could include multiplicity of licences required to export a product and cost of compliance with regulatory procedures or export requirements among others. In particular the capacity of SMEs to participate in the export markets need to be enhanced through initiatives undertaken by export promotion bodies like ZIMTRADE. Favourable financing mechanisms can ensure the growth and viability of SMEs in the engineering, metals and steel industry. Targeted value chains include the iron and steel, automobile, mining capital goods and agricultural equipment capital goods and infrastructural capital goods.

Regional and Multilateral Trade Agreements

Zimbabwe is a signatory to a number of bilateral, regional and multilateral trade agreements that are intended to improve market access, reduce tariff and non-tariff barriers among other prospective benefits of memberships. Most of these agreements are negotiated and signed at government level with inputs from the private sector. However, implementation and benefits of the agreements are driven by private players. In this regard ESIAZ needs to take stock as it drafts its strategic plan the various treaties and protocols that Zimbabwe has signed to at how they promote or impede the development of the engineering, metals and steel value chain. In particular the recent adoption of the SADC regional integration agenda and the signing of the Tripartite Free Trade Area (COMESA; SADC and EAC) creates opportunities for local entrepreneurs plug into the regional values chains and access wider regional markets. Constrained domestic demand will no longer be the main determinant of growth of the industry.

The signing of BIPPA agreements with India and China also opens broader opportunities to plug into the global value chains. However, this calls for the development of specific niches and competences based on Zimbabwe's *unique* comparative and competitive advantages. Lessons can be drawn from other countries like South Africa and Romania that have identified and built competences in componentry manufacturing. Zimbabwe used to have this capacity in a number of areas. The ESIAZ needs to facilitate the industry's rediscovery of its competitive edge and the necessary steps that need to be taken to revitalise the industry.

Exploring Niche Products for the international market

The precious metals and the engineering sector provide great potential for development of niche areas of competency in value added products like catalytic converters, stainless steel products and jewellery. In this regard the local entrepreneurs can enter into joint ventures with MNCs to leverage on the cutting edge technology to exploit and value added the abundant mineral resources. Zimbabwe is in unique position to be a competitive producer of stainless steel. Again this is an area where Zimbabwe through ZISCO Steel had made significant strides. However, years of underinvestment; policy inconsistencies and managerial shortcomings reversed gains and made redundant the skills and expertise that had been built to take the industry at another level. Resuscitation of ZISCO/New Zim-Steel is critical for the viability of the engineering, metals and steel value chain.

Marketing Organ for engineering products

In similar manner to the MMCZ, a marketing organ to spearhead the sales and marketing of metal products (particularly iron and steel products), metal components and capital goods is proposed. This proposed organ is expected to ensure dynamic export earnings growth.

Creating engineering and metals value chain linkages through clusters

Since the current value chains are dominated by MNCs, participation of local players must be enhanced through strategic clusters. The automobile, iron and steel and precious metal clusters proposed fit well into the ZimAsset Cluster initiatives. The Engineering Council of Zimbabwe and the Zimbabwe Institution of Engineers (ZIE) are also expected actively contribute in the implementation of reforms in the engineering and metals sector. Co-ordination of Government policies and harmonisation of regulatory frameworks are key in facilitating the development of clusters especially within the context of special economic zones. It is within the ESIAS's strategic interest to follow closely the opportunities to strengthen the engineering, metals and steel value chain availed by the special economic zones.

Value Chain Finance

The first priority for financing must be given to the strategic national champions involved in the resuscitating the engineering and metals sector. Technical due diligences must be adequately done to minimise defaulting on loans and ensure sustainability of the value chains. In line with the Value Addition and Beneficiation Cluster of ZimAsset, financial preferential access can be awarded to precious metals beneficiation (PGM Refinery and Jewellery sector) as well as the iron and steel industry. Effective monitoring and evaluation systems must be in place to ensure that funds are efficiently managed and used productively.

Sustainable Production and Energy Use

Several initiatives have been undertaken by ZESA, the Zimbabwe Energy regulator and the Ministry of Energy and Power development to promote efficient energy use, uptake of environmentally friendly and low energy consumption technologies. The Government has also put in place a framework to facilitate the operations of independent power producers, in particular the operation of mini-hydro to increase production of electricity are used in any new investments in the engineering and me power stations. Policies must also facilitate the implementation of international quality and environmental standards in MSMEs and local industry to enhance export competitiveness and viability. Incentives must also be availed to Maximum Demand Users who reduce their Maximum Demand through adoption of effective demand management strategies or invest in sustainable energy production. Sustainable energy production presents presence opportunities for Public Private Partnerships which the engineering and metals sector can tap into.

3. Current policy environment governing the engineering, iron and steel sector

3.1 Macroeconomic environment

Prior to the multicurrency regime that the country is currently obtaining, the country faced a decade of economic decline and hyperinflation. The Engineering and Iron and Steel (EIS) sector was not spared from the severe economic challenges which resulted in some companies closing down. For example, ZISCO Steel, the biggest iron and steel producer in the country, stopped production in 2008, thus not only affecting the supply of raw materials in the EIS sector, but also prejudicing the metals and metal products subsector of over US\$3 billion/year in revenue (ZEPARU, 2014).

In 2009 the country adopted the multicurrency regime to stabilize the economy from hyperinflation which eroded the capital base and savings of most companies including those in the EIS sector. While the multicurrency regime brought some stability in prices, it also resulted in competitiveness challenges in the economy.

The main limitation of multicurrency regime/dollarization is that the country has no latitude to operate an independent monetary or exchange rate regime to address economic shocks or provide incentives to direct the country's economic development. For example the country cannot devalue when the exchange rate is overvalued or increase interest rates to attract surplus funds (savings) into the financial system. The strengthening of the United States dollar, which is the anchor currency, against Zimbabwe's main trading partners such as China and South Africa has resulted in the products from the EIS becoming uncompetitive. With a stronger US dollar, importing and retailing has become a viable business option than investing in local production. This results in low capacity utilization with some of the existing plants being put under care and maintenance.

The lucrateness of the Zimbabwe market for externally produced products (imports) necessitated by the adoption of the multi-currency regime (dollarization) has resulted in some substandard products being dumped on the Zimbabwe market. There have been some reports that the foreign products are selling at below cost in a bid to get United States dollars. The inflow of imports and in particular substandard products in the domestic market undermines local production and further weakens the local EIS value chains.

In addition to the constraints arising from the use of an overvalued US\$ in comparison to the currencies of our trading partners, government have limited options to support the revitalization of the EIS value chains due to the binding fiscal constraints. In a dollarized environment there is no scope to use monetary policy to stimulate production. Furthermore, the banking system is dominated by short-term deposits which cannot be transformed into long term loans due to fears of asset liability mismatches. Thus, in the absence of monetary policy based incentives and limited fiscal space to create fiscal incentives, the companies have to focus on their internal processes to improve efficiency and raising capital offshore where it is possible.

The players in EIS sub-sector are also experiencing erosion of market share to former employees from the sector who have set-up shop as registered or non-registered operators in the informal sector. There is brisk business in the informal sector where some of the players do not have huge overheads and hence can afford to undercut the large formal

sector players. This trend is likely to rise as unemployment levels increase and as more EIS products are imported products from cheaper sources, companies in the EIS sector will face even stiffer competition from the informal sector. The main competitors of the large formal sector are mainly former employees who have taken business away from formal establishments. In some cases, clients call for tenders and prospective formal entities respond giving detailed technical proposals but eventually the job will be given to a different formal company or an informal one.

The limited latitude to operate an independent monetary policy also means the Reserve bank cannot print money to respond to liquidity shortages in the system. The resultant limited liquidity in the economy has led to high lending rates; reduced tenor of bank loans with the concentration being on short-term loans. To inject liquidity into the system the country now relies heavily on exports, remittances, external lines of credit and foreign direct investments. The implication to the EIS sector of limited liquidity is constrained access to finance for retooling and investment into new technologies. Limited liquidity has also adversely affected the local demand for EIS products. The size of capital goods market is small partly as a result of limited liquidity which explains why there are challenges to revitalize iron and steel industry value chain. However, the challenges of low domestic demand can be rectified by exploring the exploit opportunities in the expanding regional markets.

One policy option that is being pursued by government to improve competitiveness is to encourage economic producers and retailers including those in the EIS sector reduce costs and improve efficiency and productivity. Government on its part is working on the doing business reforms in a bid to reduce the cost of doing business. This includes the operationalization of ZIA as a one stop investment center.

3.2. Infrastructure environment

3.2.1. Electricity infrastructure

The EIS sector in Zimbabwe is among the high consumers of electrical energy. However, the sectors' operations are faced with erratic power supplies that have resulted in engineering firms cutting back on production and/or alternatively switching on to more expensive forms energy which increase the cost of doing business.

Apart from electricity been erratic, it is very costly in Zimbabwe due to aging power plants. Companies pay an effective tariff rate of US14.5 cents per kWh which is 43% above the average tariff rate for Botswana, Mozambique, Zambia and South Africa (ZEPARU, 2014). This renders the country's industry uncompetitive against foreign rivals, given that about 40% of costs in the iron and steel manufacturing are attributed to power costs.³ Countries which are using gas are currently benefiting from the record low gas prices which are envisaged to remain subdued for the next three or more decades. Although coal was cheaper to use in the production of iron, using direct reduced iron (DRI) process, this has now changed owing to the availability of gas and cheaper prices for each ton of iron

³<http://www.engineeringnews.co.za/print-version/south-african-steel-industry-needs-protection-policies-2014-02-28>, accessed 13 August 2015.

produced. Thus, most steel-producing countries that use gas to manufacture steel are set to benefit from a 30-year outlook of low gas prices. The use of gas instead of coal in the DRI stage of steel production leads to a higher quality of iron in the steel making process. The price of gas-produced DRI, compared with coal-produced DRI, has been higher since early 2000s up to 2009, but this changed in 2010, when gas-produced DRI dipped below coal-produced DRI at \$50/t of crude iron. This lower price trend is set to persist well beyond 2030.⁴ However, the potential gas project at Lupane needs to be operationalised to see if Zimbabwe's iron and steel industry can benefit from this trend.

3.2.2. Transport infrastructure

The EIS sector depends much on the rail and road freight network to move their products from one point to another. The transport infrastructure in the country is in a poor state and condition resulting in the sector depending on very expensive alternatives. With relation to railway infrastructure, the low availability of locomotives and other rolling stock and the old and poorly maintained track have resulted in a decline in service delivery by railway network operator the National Railways of Zimbabwe (NRZ). The deterioration in locomotives, wagons, and coaches is a result of inadequate maintenance and non-replacement of obsolete equipment which stems from the weak financial position of the NRZ. Revamping and rehabilitation of the national rail network is essential for bulk and cheap movement of cargo.

However, in terms of freight charges the NRZ freight rates are based on recovery of full cost plus a modest mark-up. In coming up with the tariffs, the NRZ takes into account factors such as the type of commodity, type of wagon used, and distance travelled. As a result, rates for rail freight vary according to the commodity carried, in contrast to road haulers who maintain a flat rate per vehicle per km, regardless of the commodity carried. According to the African Development Bank (2010), whilst the average rail freight charges per ton per kilometre are 11.4 percent cheaper than road freight charges, the rail system in the country is inefficient as they are faced with dilapidated rail infrastructure and obsolete equipment and locomotives, and wagons. Hence sectors that rely heavily on moving bulk equipment and commodities have had to rely on more expensive road freight system adding to their cost of doing business. Whilst the road transport system is readily available and reliable, the AfDB (2010) noted that road freight rates charged within Zimbabwe were about one and half times greater on the north-south corridor that transverses Zimbabwe.

3.2.3. Water supply

Water deliveries and supplies to the engineering and metals sector are inadequate and sometimes of poor quality due to old and poorly maintained infrastructure, inadequate and poorly functioning infrastructure and uneconomic tariff structures. This has resulted in most firms using alternative sources of water such as boreholes and private water providers which are more expensive.

⁴Ibid

3.3. Regulatory environment

The regulatory environment in Zimbabwe tends to be characterized by multiple agencies whose work is uncoordinated and tend to be bureaucratic. The regulations impose a cost on business in terms of time and monetary payments. Thus, according to the Heritage Economic Freedom Index, Zimbabwe's regulatory framework is costly and time consuming for businesses to operate in.

Since the metals and engineering sector activities involves the release of gaseous, solid and liquid waste they are subjected to the Environmental Management Agency (EMA) environmental regulations. The annual fee schedules payable to EMA for effluent and solid waste disposal range from \$32 to \$1,200 per licence category, whilst for atmospheric pollution, they range from \$32 to \$9,000 and for hazardous waste management, the fees range between \$32 and \$672. However, these fees also include fines, as the fees for EMA are based on the 'polluters pay principle'. One firm can also pay for multiple licenses depending on type of business and associated emission content; the charges vary depending on the concentration of the flow as defined by the four colours.

In addition to costs associated with employee benefits, firms in the metals and engineering sector also need to meet costs directly related to their production as compliance costs payable to NSSA. Before a firm starts operating, plans for their factories have to be approved by NSSA at a cost of 1% of the estimated costs as approval fees. Registration under the Factories and Works Act require the manufacturer to pay between \$100 and \$300 for the factory, about \$200 each for the elevator and escalator as well as between \$100 and \$1800 for the boiler, depending on size. While inspection of premises is free for the factory, a charge is levied for elevator and escalator inspections (\$1,000 each) as well as for boilers (\$50-\$600 depending on size).

4. Enabling and inhibiting macroeconomic policies that impact on the competitiveness of the engineering, iron and steel sector.

4.1. Policies enabling competitiveness

4.1.1. Investment incentives

The fiscal regime provides generous tax concessions intended to attract investment. The Zimbabwe Revenue Authority (ZIMRA) administers various tax incentives aimed at promoting investment. Non-tax incentives are administered by the Ministry of Industry and International Trade, the Industrial Development Corporation and the Zimbabwe Investment Authority. The major goals of incentives in place are:

- Income generation
- Export promotion
- Employment creation and skills transfer
- Small business development
- Industrial development
- Revenue inflows

There is a wide range of rebates on Customs duty in respect of certain raw materials, strategic entities/sectors and certain types/classes of capital equipment that the EIS can benefit from. The standard tariffs for custom duty can be varied due to special rates

Trade and Private Sector Development Programme (TPSDP) in Zimbabwe
A programme funded by the European Union

applicable to an agreement or trade block membership. The incentives under Customs and Excise duty that can benefit companies in the EIS sector are as follows.

- *Inward processing rebate: SI 59 of 1997:* This provides for rebate of duty on goods imported for use in a process of manufacture of goods for export. Anyone who wants to import or take out of bond goods for inward processing should first apply and get registered under this facility.
- *Registered motor vehicle assembler: SI 13 of 1999:* Rebate is granted to a registered motor vehicle assembler on component parts imported or taken out of bond, for use in the assembly of motor vehicles.
- *Registered bus assembler: SI 169 of 2004:* Rebate is granted to a registered assembler on component parts and materials imported or taken out of bond, for use in the assembly of buses.
- *The 7 day Credit facility for importations SI 74 of 2009:* This is granted by ZIMRA to approved importer or agent wishing to remove imported goods under the 7 day credit facility upon fulfilment of the prescribed conditions. The person making entry of such goods thus defers payment of the duty thereon for a period of up to seven days from the date of entry.

Companies in EIS sector can also benefit from Special Initial Capital Allowance (SIA) which is provided on specified assets such as plant and machinery and industrial buildings at a rate of 25% of the cost of the asset in the year of assessment in which such asset is first used (Deloitte, 2014). In the subsequent 3 years, the asset is entitled to accelerated depreciation at a rate of 25% per year, resulting in the deferment of taxation of business profits. SMEs in the EIS sector can access a capital allowance structure of 50% SIA, and 25% accelerated wear and tear in the subsequent two years of assessment. However, the question is, is this enough? During independence capital allowance was 100% to support local economy to be competitive. Now we need industry to refocus on how it runs. Government needs sacrifice revenue now and recoup it through economic recovery. It may be worthwhile for government to provide 100% deduction to selected industries for acquisition of modern technology.

There is no restriction on the amount of foreign currency brought into Zimbabwe. The foreign investment equity can be in the form of cash or capital equipment. Investors can remit 100% of their dividends subject to Exchange Control approval. On disinvestment, 100% repatriation of invested capital is allowed.

4.2. Policies inhibiting competitiveness

4.2.1. Exchange controls

The Reserve Bank of Zimbabwe endeavour to curb externalisation of export proceeds by exporters instituted punitive measures, causing exporters to offer shorter credit terms to their international clients. Given the current global cut throat competition in which exporters outbid each other through offering flexible payment terms and longer payment periods to their international clients, local exporters have become less competitive. Exporters are being discouraged from offering competitive payments terms, because of punitive central bank's Exchange Control Flagging Framework which flags export proceeds not repatriate within the

90 days as overdue and subsequently charges penalties ranging from 1% to 5 % of their export value (Table 3).

Table 5: Reserve Bank of Zimbabwe Exchange Control Flagging for Exporters

Number of days from date of export or value of overdue amount	Status	CEPEPCS Flagging	Export Documentation Access fee or penalty fee per Form
Advance payment	Not Overdue	White	5
Less or equal 90 days	Not Overdue	Green	10
91to 120	Overdue	Orange	USD 30 or 1% of export value of the Form CD1 being raised whichever is greater
121 to 180	Overdue	Red	USD75 or 2 % of Export value of the Form CD1 being raised whichever is greater
181 to 365 or overdue for amounts between USD 100 001 to USD 150 000	Overdue	Purple	

Source: Reserve Bank of Zimbabwe

4.2.2. Indigenisation Policy

The uncertainties and negative perceptions created by the indigenization and economic empowerment framework have created an unfavourable investment climate. Investors seeking for greater policy clarity tend to shy away from investing and in the process denying the country the much needed capital critical for re-tooling, re-capitalisation and overhaul of the antiquated machinery, and for value addition. The major area of concern is time period required to comply with the 51/49% thresholds and the process of offloading the 51% to local partners hence the efforts by government to clarify the policy need to be continued. Furthermore, there is need for consistency in interpretation and application of the law to reduce the risks associated with the implementation of this law.

4.2.3. Industrial and Trade Policy

Section 1.3.5 and 3.7.1 of the Zimbabwe Industrial Development Policy seeks to review of Import Tariffs to the benefit of local manufacturers and these adjustments sought, will require a raise in tariff levels. The Government seeks to achieve this through reviewing customs duty and VAT on industrial raw materials. However, the proposed upward revision of the tariff regime might be inconsistent with the country's obligations under the WTO, ACP-EU, SADC and COMESA treaties. As a remedy the government proposed that Zimbabwe's industry be offered temporary protection through tariffs during a Three-Year period of the IDP's implementation. To date, the country has only sought derogation from one trading partner to review its tariffs so as to avoid retaliatory measures by other trading parted

4.2.4. Conflicting policy positions:

The inconsistencies and uncoordinated efforts by the Ministry of Industry and Trade and the Ministry of Mines and Mineral Development in finalizing the New ZIM Steel mineral rights,

has stalled progress on the revival of ZISCO Steel resulting in foreign investors developing cold feet on this project. The ZIMASSET blueprint and the industrial policy note that the level of transforming primary goods into intermediate and finished products needs to be enhanced with the EIS sector being no exception. It is highlighted that for the steel industry in Zimbabwe to recover and have long term sustainability there is need for the revival of New ZIM Steel. The EIS sector has strong backward and forward linkages to sectors such as mining, construction, agriculture, machinery, and transport. The revival of the New ZIM Steel is envisaged in ZIMASSET blueprint to increase the supply of value added steel products to 700 000 tonnes of liquid steel per annum.

4.2.5. Lifting of chrome and platinum export ban

As much as 90% of Zimbabwe's minerals are exported in raw or semi processed form. As a result, the government is spearheading its beneficiation and value addition program through the ZIMASSET blueprint which seeks to go beyond primary processing of products in the metals and engineering sector. To support value addition, the government banned the export of raw chrome and platinum. However, in 2015 the ban has since been reversed at the expense of forward linkages in the metals value chain in Zimbabwe.

4.2.6. Rules of origin

COMESA Rules of origin on stainless steel in ingots and semi-finished products of stainless steel (HS 7218) stipulate that goods are considered originating if they have been produced in the member States wholly or partially from materials imported from outside the member States or of undetermined origin provided that:

- The c.i.f. value of those materials does not exceed 60% of the total cost of the materials used in the production of the goods;
- The value added resulting from the process of production accounts for at least 35% of the ex-factory cost of the goods;
- Manufacture from materials classified in a heading other than that of the product⁵.

SADC rules of origin on stainless steel provide that goods qualify if all the materials used in production are classified within a heading other than that of the product. SADC also uses process application for rules of origin to be conferred to a product. Here a specific process has to be applied to a product for origin to be conferred. For example, for some iron and steel products e.g. HS 7216 (Angles, shapes and sections of iron or non-alloy steel) the process specified is "manufacture by cold-rolling or cladding"⁶. Any other processes used will not confer origin. Given the operating challenges in our local industry, this may render our exports non-qualifying.

The major challenge in Zimbabwe however, is that production capacity of most industries is very low to the extent that most of the steel is imported. For companies to meet 35% value added component with the current levels of production and technology is big challenge thereby making it difficult for Zimbabwe's exports to enter the regional blocs duty free or on

⁵<http://www.rulesoforigin.org/rules/7218>

⁶<http://www.rulesoforigin.org/rules>

preferential rates. Further, steel cost of production is 80%, and most of the raw materials are imported thereby failing to meet the COMESA rules of origin that stipulates that the c.i.f. value of those materials should not exceed 60% of the total cost of the materials used in the production of the goods. More so, some member states say in the SADC region like South Africa are alleged to be abusing rules of origin, leading to member state according duty free access to goods that do not necessarily originating from those countries. It is however, technically a challenge for Zimbabwe to prove this as it is very expensive in addition to requiring specialized skills to do so.

4.2.7. Regulation and Environmental Management Agency

A key issue of concern is that EMA stipulates unattainable carbon emission levels for the local industry in its current weak state. In fact, most companies feel that the regulatory agency sets developed world levels for struggling companies. Failure to adhere to these set regulations attracts very high penalties of which the sector feels is not in line with the current economic crisis crippling the local industry. This negatively impacts on their competitiveness and is not consistent with the current challenges facing the industry.

4.2.8. Regulation and ZIMRA

Under the current harsh economic environment where government is seeking to revive companies and promote investment, stakeholders highlighted that ZIMRA charges 100% penalty for late filling of tax returns despite that a company has paid their tax obligations – this is costly and needless. They also highlighted that ZIMRA requires companies to pay tax on unpaid invoices. ZIMRA also garnishes company accounts leading to company liquidation and closures, subsequently causing loss of both outstanding and future tax revenues. However, some stakeholders indicated that they have successfully engaged ZIMRA on issues of paying tax on unpaid invoices and their accounts being garnished.

4.2.9. Taxation Regime

The tax system of Zimbabwe is regarded as posing a heavy burden on companies as compared to other countries in the region, especially given the harsh economic environment that is currently obtaining in the country. It is considered as one of the most difficult and expensive, and Zimbabwe is ranked 171 out of 189 on ease of doing business in the 2015 World Bank Doing Business Report. Cumulatively, studies have shown that companies pay over 50% of their proceeds in taxes.

Although a withholding tax of 20% is a positive development as it encourages local supply of services and capital, its advantage loses value and adds to costs if there is very low domestic capacity to provide services and capital.

4.2.10. Labour laws

Zimbabwe labour market is governed by the Labour Act of 1985 which was amended several times. According to CZI (2013), 57% of companies surveyed sighted restrictive labour regulations as having either a negative or very negative effect on doing business in Zimbabwe. Further, 53% of the companies surveyed indicated that minimum wages have either a negative or very negative effect on doing business in Zimbabwe. Business community concerns regarding the labour issues relate to dismissal of employees,

disciplinary hearing, terms of contracts, non-explicit link between productivity and remuneration, cumbersome dismissal procedure, leave provisions that are too generous. Further, Zimbabwe is among 53/189 countries where paid leave per annum is in excess of 22 working days. In addition there is paid maternity leave, casual days and sick leave of up to six (6) months. There is no specific link of labour performance to business laws.

All along Zimbabwe's labour law has been considered as very restrictive and costly to business and companies were finding it very expensive to lay off workers hence discouraging new foreign investment into the country. ZISCO Steel despite stopping production in 2008 continued to accrue payroll liabilities which were US\$131.5 million as at 31 May 2015. This makes the company unattractive to any potential investor (GoZ, 2015). The Supreme Court has just passed a ruling that allows employers to terminate labour contracts on 3 months' notice. The country is also in the process of reviewing the labour laws to make them more flexible to allow for viability of business.

4.2.11. Import duties

Some stakeholders have raised concern about unnecessary import duties that were meant to protect companies that are no longer operational. Such import duties are now irrelevant and adding to productions costs needlessly.

4.2.12. Education policy

Although stakeholders generally agree that skills for the EIS sector are adequate, with a skills list spanning from metallurgists, engineers, artisans, managers, technicians, boiler makers, etc., with certificates, diplomas and degrees, they noted that our education policy generates graduates who are theoretical (although it forms a basis for competence), lacking practical touch, industry specific skills and entrepreneurship. They noted that education policy is biased towards humanities, social sciences, business, management and law. Enrolments are lower for science, engineering and technology disciplines.

5. Lessons from other country experiences on policy and incentive structures that could be adopted for the sector

The South African policy strategies towards the motor vehicle industry (Box 1) can give important lessons for Zimbabwe. Important lessons can be provided with respect to the Zimbabwe engineering, iron and steel industry. It is possible to stimulate demand for local products through protection, as long as the protection measure is also intended to incentivise production. A gradual phase down of protection to include some partial opening up, which would be solely intended to subject the domestic industry to competition without necessarily killing it worked well in South Africa. The most important implication from the South Africa experience is that the value chain benefits in the industry can easily be created by enhancing demand for locally produced metal using products.

Box 1: Policy strategies to protect the South Africa motor industry

Black (2002), Black and McLennan (2015) and Black (2001) show the evolution of the South Africa motor industry, especially the various tools that the government put in place to facilitate its growth. Car assembly started in the 1920s in South Africa, with high tariffs being used to protect the domestic industry. Although the high import tariff prevented import competition, this promoted a high level of competition among the domestic assemblers, which saw the introduction of new models. However, the high level of protection at a time when domestic production was largely small scale led to high prices. The South Africa government also introduced local content policies through a series of programmes initiated in 1961. When the local content programme was in its second phase in 1971, motor vehicle manufacturers were required to have 52% local content, as measured by the weight of the local components used, with prohibitively high tariff on imported parts being imposed. This was very instrumental in the emergence of the domestic vehicle parts and components industry. However, since these were mostly small scale players, this subjected vehicle manufacturers to high costs. They were still able to continue to service the domestic motor vehicle demand despite the high costs due to the high level of protection. The local content had reached 66% in 1977, which was still the prevailing rate when it was extended to light commercial vehicles in 1982.

A policy shift was witnessed in 1989 when Phase VI of the local content programme was introduced. The main focus of the local content programme was export promotion, where exports of domestically produced vehicles or components could be counted as local content. The local content requirement was also reduced to 50% from 66%, with export promotion being the main rationale. This however mainly pushed exports in the components sector, with little response initially in the completely built-up (CBU) sector. This also resulted in further policy responses, through the introduction of the Motor Industry Development Programme (MIDP) in 1995.

Key features of the MIDP were:

- (a) Reduced tariffs on light vehicles and components, with tariffs being phased down even faster than required by WTO obligations;
- (b) Removal of local content requirements;
- (c) Duty-free import of components up to 27 percent of the wholesale value of the vehicle;
- (d) Duty rebate credits to be earned on exports of vehicles and components and used for duty-free import of vehicles and components.

The implementation of the MIDP saw a surge in both the import and export of vehicles. Exports were mostly spurred by the duty rebate credits, which motivated the local manufacturers to be able to become more competitive in international and regional markets. This also spurred the growth of the value chain industries, as demand by the vehicle manufacturers surged. The MIDP was replaced in 2013 by the Automotive Production and Development Programme (APDP). The APDP continues with the protection stance, which include a 25% tariff on imported vehicles and production incentives for the manufacturers.

The experiences of China and India steel industries (Box 2) also give important lessons on how a country can develop its steel industry. This includes direct support that is designed to make the industry regionally competitive, which includes tax holidays and other support.

Box 2: Steel industry protection in China and India

The China steel industry was generally spurred by the 2005 Steel and Iron Industry Development Policy. Under the policy, the steel industry was characterized by heavy government involvement in all aspects with the number and size of steel producers being prescribed. The Policy also mandates direct government subsidies in the steel industry. Such subsidies include tax refunds, discounted interest rates, funds for research and other forms of policy support for major iron and steel project utilizing newly developed domestic equipment. The policy also restricted foreign investment, discriminated against foreign equipment and technology, while Chinese firms received various export credits. These measures made it difficult for other regional and international firms without such government support to compete.

In 2015, China introduced a new policy for the steel industry, the Steel Industry Adjustment Policy (2015 Revision), which is still a draft. However, the policy also shows the same orientation of domestic industry assistance. For example, it calls for the creation of three to five very large steel groups that would be internationally competitive, as well as a group of regional market players and market segment leaders. Such institutions (national champions) would be created through government support, which include policy encouraged mergers and acquisitions. The Policy calls for the government to continue supporting a wide variety of the steel industry's commercial activity. Thus China's steel industry's dominance in the market can also be attributed to the subsidies and other assistance provided to the industry, which makes them more competitive in the global market than those from other economies without that support.

Although there have been some recent moves to the contrary, the India steel industry has also received some considerable level of policy support over the years. For example, in December 2011, the government hiked iron ore export tax to 30% to help the domestic steel industry, which had been grappling with iron ore shortage. Also, iron ore pellets were fully exempted from export duty to encourage the value addition process for fines. In the 2012 budget, customs duty on mining equipment, including equipment for pellet plant was cut from 7.5% to 2.5%.

In order to encourage research and development activities in iron and steel sector, the Ministry of Steel provides financial assistance to firms, using the Steel Development Fund (SDF). This Fund was set up for the purpose of providing resources for the development of the Steel Industry, which can also be emulated in Zimbabwe as the industry is also strategic. The government also introduced Special Economic Zones (SEZs) in June 2005, with steel plants operating in SEZs receiving some advantages, which include tax holidays and the ability to freely source inputs domestically or externally without any specific approval or duty payable.

6. Policies measures and incentive structures that could revive and advance value addition

The engineering, iron and steel industry has a great potential to support economic growth and development. Government through its economic blue print, ZIMASSET, is emphasising on mineral beneficiation and is in a drive to attract investment geared towards the setting up of mineral beneficiation facilities. The EIS sector presents great value addition opportunities for the country's rich mineral endowment which forms a strong base for the provision of raw materials that feed into the sector. Over the period 2008-2012, the country imported about 82% of value added engineering goods while exporting about 94% metals and metal products, mainly less beneficiated and value added products (ZEPARU, 2014). By volume, the global consumption of steel alone is around 10 times that of all other metals combined and by value it is more than double all other metals combined, including precious metals (Jordan, 2012). Jordan (2012) demonstrates the great potential that Zimbabwe has in steel production using costs for a typical coking coal blast furnace (BOF) steel plant (Table 4).

Table 6: Typical Costs for Steel Production, 2010

Item \$/unit	Factor		Unit cost	Fixed	Variable	Total	%	Σ	Zim
Iron ore	1.435	t	62		88.97	88.97	23%		+++
ore transport	1.435	t	20		28.7	28.7	8%	31%	+++
Coking coal	0.519	t	128.5		66.69	66.69	18%		+++
Coking coal transport	0.519	t	19.5		10.12	10.12	3%	21%	++
Steel scrap	0.162	t	325		52.65	52.65	14%		~
Scrap delivery	0.162	t	5		0.81	0.81	0%	14%	~
Oxygen	80	m ³	0.08		6.40	6.40	2%		+
Ferroalloys	0.014	t	1400		19.60	19.60	5%		+++
Fluxes	0.521	t	30		15.63	15.63	4%	9%	++
Refractories	0.011	t	600		6.60	6.60	2%		++
Other costs	1		13	3.25	9.75	13	3%		~
By-products					-20.00	-20	-5%		~
Thermal energy,	-2.68	GJ	12.50		-33.50	-33.5	-9%		~
Electricity	0.122	MWh	150	2.75	15.56	18.3	5%	-4%	++
Labour	0.64	m-h	35	5.6	16.8	22.4	6%		+
Depreciation				40.00		40.00	11%		~
Interest				44.00		44.00	12%	23%	-
Total				95.6	284.78	380.37	100%		++

Source: adapted from Jordan, 2012

As shown in the last column of Table 3, Zimbabwe is in a relatively very strong position (+++) in terms of iron ore, ore transport, coking coal, ferroalloys and a relatively strong position (++) in coking coal transport fluxes, refractories, electricity and total cost of production due to having the requisite mineral resources. The cost of capital (interest) is the only negative relation position due to higher interest rates than most competitors. Overall, this appears to indicate that steel could be produced very competitively in Zimbabwe for the domestic and SADC markets, and possibly the world market (although transport cost to the global market would diminish global competitiveness).

Further, Jordan (2012) notes that the Mwanesi iron ore deposit could provide the resources not only for a world class steel plant, but also for a low logistics corridor to the global market. More so, Zimbabwe has significant resources of chromium and nickel which are key

constituents of stainless steel, prompting the possibility of establishing a stainless steel slab plant based on local FeCr and Ni, once the critical power shortage has been resolved.

6.1. Policies and incentives to revive EIS sector and promote value addition

Some of the main challenges that have been put forward affecting the EIS sector and its potential for value addition are, among others, erratic and costly power, skills shortages, small market for capital goods, high dependence on imported raw materials, competition from imports, inferior technologies, lower levels of compliance with international standards, competition from the informal sector, old machines and machine breakdowns.

The strategies and incentives that can be considered to promote value addition in the EIS sector are:

- Resuscitate the iron and steel plant at ZISCO and avoid over dependence on imported raw materials. Ensure that the deal of resuscitating ZISCO promotes use of more modern technologies. The shut-down of ZISCO is prejudicing the metals and metal products subsector of over US\$3 billion/year (ZEPARU, 2014);
- Remove import duty on all raw materials to reduce costs of production and improve competitiveness of the EIS sector, while the resuscitation of ZISCO is being worked on;
- Exempt from income tax the interest earnings on loans made to MSMEs in the EIS sector just like the case with small-scale gold producers. This would promote lending to EIS MSMEs;
- Create regional integration networks to overcome limitations posed by a smaller domestic size of the capital goods market;
- Introduce beneficiation milestones in mining leases and make downstream value addition a bid variable for all new competitively tendered mineral concessions so as to grow the EIS sector;
- Impose a small export tariff (<5%) on select raw mineral exports to encourage beneficiation, where independently shown to be viable;
- Make an independent assessment of the viability of establishing a stainless steel slab plant, and if positive, an export tax on ferrochrome and nickel exports should be considered;
- Consideration could be given to expanding the Indigenisation Law to cover purchases from indigenous suppliers, based on indigenous proportion of local value added in the goods or services supplied;
- Make local content commitments a bid variable with significant weighting for all new competitively tendered mineral concessions (auctions) so as to create mining sector backward linkages with the EIS sector;
- Establish a sector specific skills development organ to ensure the supply of sector specific relevant skills. An obligatory spending floor of $\geq 5\%$ of payroll or labour levies may be considered for purposes of finding the organ. In this regard, consider and improve the South African model of SETAs (Sector Education and Training Authority) – see annex 1;
- Where local capacity exists in terms of supplying capital goods and other EIS goods, import duty exemptions should be scrapped to promote the local industry.

- Establish new steel producers (Mwanesi?) to sell at export parity prices (EPP) in the domestic market to grow the EIS sector and improve availability of raw/intermediate materials to the sector;
- Ban all scrap metal exports (reserve for domestic use);
- Resolve the debilitating power constraint through investments into power generation and through imports, including the temporary permitting of direct imports by EIS companies;
- Consider enlarging the local market through equitable regional integration (SADC, SACU, CMA);
- Consider introducing a system of pre-shipment inspection of traded goods at export points to prevent sub-standard items from entering the local market and competing unfairly with local EIS sector goods/services. South Africa and Kenya already implement an SGS (Société Générale de Surveillance)-type of system. To this end, government has plans of establishing a National Quality Standards Authority which will oversee the compulsory testing of local and foreign products for compliance with internationally accepted quality, health and safety standards; and
- Eliminate, through inter-departmental and ministerial coordination, soft constraints such as government procedures, rules, regulation and policies which hinder smooth operation of business in the EIS sector.

7. Conclusion

The study summarised the ZEPARU study on Engineering and Metals industry value chain and built on it by focussing on the policy inconsistencies affecting the EIS sector. The study notes that the sector has great potential to support economic growth and development as well as value addition. However, the sector faces a number of challenges which, among others, include issues of un-competitiveness stemming from a difficult macroeconomic environment, poor infrastructure and a regulatory environment with multiple and uncoordinated regulators.

The study noted that there are some policy inconsistencies that are affecting the industry. It notes that while the sector is not competitive and operating under difficult conditions, some policies are choking the sector and not helping it to become competitive. For e.g. exchange controls limit the sector from competing in terms of favourable payment terms; the uncertainty surrounding the indigenisation policy scares away investors thus hampering the sector from attracting much need foreign capital and modern technologies; the envisaged use of import tariffs in the IDP and Trade policy to protect the sector are contrary to the trade treaties ratified by the country; conflicting policy positions between Ministry of Mines and Ministry of Industry and Trade have stalled the progress towards resuscitation of ZISCO leading to high dependency on imported raw materials; the dependency on imported raw materials has limited the sector from benefiting from the rules of origin; the lifting of the chrome ban is against the objectives of value additions; environmental protection regulations set by EMA are not consistent with third world companies operating in the sector; the garnishing of accounts, request to pay tax on unpaid invoices and burdensome tax regime are suffocating the sector; the labour laws offer too generous leave conditions and do not link remuneration to productivity; some import duties are no longer relevant as they seek to protect non-operational firms hence unnecessarily increasing costs of production; and the

education policy generates graduates who are theoretical, lacking practical skills and entrepreneurship.

In order to improve the sector, it is recommended in the study that: ZISCO be resuscitated so as to avoid reliance on costly imported raw materials and to enhance the EIS sector products chances of qualifying under rules of origin; import duties on raw materials that are not locally available be removed to reduce costs of production; import duty exemptions on EIS products for which we have local capacity to supply be removed; exempting from tax the interest earned on loans extended to the EIS sector so as to encourage lending to the sector; introducing beneficiation milestones in mining lease agreements so as to grow the EIS sector; small export tax be imposed of selected minerals to encourage beneficiation where it is independently assessed that beneficiation is viable; mining sector backward linkages be created with the EIS sector by making local content commitments a bid variable in all mining leases; a sector specific skills development organ be established such as the Sector Education and Training Authority (SETA) be established to ensure supply of sector specific relevant practical skills; export of scape metal be banned to reserve input for local industry; introduction of pre-shipment inspection at exports points be considered to curb the inflow of cheap substandard imports of EIS goods; and elimination of soft constraints such as rules, regulations and policies that humper the smooth operations of the EIS sector be considered through inter-departmental or ministerial coordination.

CHAPTER II: MICRO TO SMALL AND MEDIUM ENTERPRISES NEEDS ASSESSMENT

1. Background

A Micro to Small and Medium Enterprises (MSMEs) Needs Assessment Survey was commissioned by the sector stakeholders as one of the major activities aimed at informing the strategy process for the engineering iron and steel sector.

1.1 Objectives of the SMEs Needs Assessment Survey

The broad objective of the survey was to identify market support and business development services required to build SMEs capacity. The sub-objectives, derived from the broad objectives were as follows;

- To identify existing products and market combination and dynamics in the sector
- To identify possible market and product development opportunities (locally, regionally and internationally)
- To identify Value Chain constraints and structural, policy and firm specific barriers which are preventing the revival of the sector and required to make SMEs competitive again
- To assess current economic performances of Sector's SMEs and their level of competitiveness
- To identify the enablers for Value Chain enhancement

The SMEs definition adopted for the survey was the one defined by the Government of Zimbabwe through the Small Enterprises Development Corporation (SEDCO) *Amendment No. 6 of 2011, Fourth Schedule (section 2)*. The scope included a diagnostic assessment of MSMEs involved in transformational activities (casting, fabrication, forging, stamping, extrusion, etc) which utilise iron ore and raw steel and their intermediary products, energy, water, technology and speciality skills to produce the classified engineering iron and steel products. It was generally noted that the Engineering Iron and Steel Sector of Zimbabwe had significantly scaled down due to the prevailing economic environment and hence the actors once classified under large enterprises were also considered for the survey.

1.2 Methodology

The execution of the survey commenced with the program design and planning phase which involved value chain mapping, sample sizing, instruments development and testing and desk studies. The SEDCO definition of SMEs was adopted for the scope of the survey. Sampling was done based on level 3 (metal formers/foundries) to level 6 (distributors and retailers) value chain stages. A population estimate of about 400 was used with a sample size of 100. The samples were stratified according to i) value chain stage, ii) subsector of activity, iii) firm size and iv) geographical location and the statistics showed satisfactory representation. The instruments were developed using the UNIDO's seven dimensions industrial diagnostic tools, tested and administered during field visits as well as electronically through mail. Desk studies, field visits to all the key geographical areas of industrial activities, key informant interviews and focus group meetings were done as data collection methods. A total of 84 questionnaires were administered with 59 being completed and collected, thus translating to 69% response rate. The collected data was compiled; cleaned and analysed using SPSS and refined using excel spreadsheets. A draft report was written, presented in PowerPoint

and validated at a Stakeholder Validation Workshop. Finally the outputs of the validation workshop were incorporated into the report to produce the final report.

The weighted objective method was used to determine the sample sizes of different locations and subsectors. *Tables 4* below present the population estimate that was used as a basis for sample size determination for data collection.

Table 7: Population Estimates for the Engineering Iron and Steel Sector of Zimbabwe

Geographical Location	Total	Medium	Small	Micro
Harare & Peri-Urban	162	39	58	65
Kadoma	15	4	5	6
Kwekwe	25	5	7	13
Gweru	23	5	8	10
Bulawayo	50	12	18	20
Mutare	30	6	9	15
Masvingo	15	3	6	6
Others (Gpoints, Small towns, etc)	80	15	30	35
Totals	400	89	141	170

1.2.1 Instruments Development

A questionnaire was developed and tested as the major instrument for carrying out the Needs Assessment Survey (see *Annex 12*). The instrument design and development was guided by the objectives of the survey. The questionnaire design was designed based on UNIDO's 7 diagnostic dimensions approach. The thematic dimensions for needs analysis are i) Sources of inputs and supplies, ii) Production capacity and Technology use, iii) Products, End markets and Trade, iv) Governance of the value chain, v) Sustainable production and energy use, vi) Financial requirements and vii) the Business context and socioeconomic environment. The governance dimension did not form a significant portion of the study since it was covered in a separate study elsewhere. The questionnaire was developed based on the objectives of the study as well as incorporating input from similar work documented in the Zimbabwean Engineering and Metals Value Chain Diagnostic report as well as the Italian SMEs needs survey. The industrial questionnaire instrument was taken for field testing from the 3rd of August to the 7th of August 2015 to four respondents who included three industrial players, and one member from the Ministry of SMEs. The questionnaire was hence refined and sent to the facilitator for approval.

1.2.2 Data Collection

Questionnaire Distribution and Key Informant Interviews

The questionnaire was distributed both electronically and physically to key informants after obtaining and observing the formal introductory procedures for engagement. Prior to field surveys and key informant interviews, appropriate communication channels which included emails, phone calls and direct channels were used to engage the stakeholders. Soft and hard copies of instruments were distributed to the stakeholders/respondents and appointments for administration of the instruments were scheduled, where necessary. The key informants included chief executive officers, cluster representatives, executive officers of associations, directors, line managers and individual company owners amongst others. The list of interviewed key informants is shown in *Annex 1*, whilst the interview details are presented in *Annex 10*.

Field visits were also conducted for on the ground observations of the status of the sector. The field work was carried out for Harare industrial, Bulawayo and Mutare routes from the 31st of July 2015 to the 28th of August 2015. The Harare field teams covered Workington, Granite side, Willowvale, Ardbennie, Aspindale, Southerton, Masasa, Mbare and Gazaland in Highfields. Parallel teams covered targeted areas outside Harare which included Chegutu, Kadoma, Kwekwe, Gweru, Bulawayo, Murehwa, Nyanga, Masvingo, Gokwe and Mutare. An overall response rate of 69% as shown in *Table 8* below was achieved.

Table 8: Response Rate and Coverage for Survey

Location	Medium	Small	Micro	Collected	Total administered	Response rate
Harare	10	11	6	27	45	60%
Murehwa	0	0	4	4	4	100%
Mutare	0	3	4	7	7	100%
Rusape	0	0	1	1	1	100%
Nyanga	0	0	1	1	1	100%
Chipinge	0	0	2	2	2	100%
Masvingo	0	1	0	1	1	100%
Bulawayo	4	6	0	10	16	63%
Kwekwe	0	1	0	1	2	50%
Redcliff	1	1	0	2	3	67%
Gweru	1	0	0	1	1	100%
Kadoma	0	1	0	1	1	100%
Totals	16	24	18	58	84	69%
%Presentation	28%	41%	31%			

The coverage and representation are described in Figures 5 and 6 below. The targeted administration of questionnaires on field tours to 100 firms could not be achieved since some of the firms had ceased operations. A rough estimate from the field observation indicates to about 16% of the firms having totally ceased operations. Of the sample size, 41% were of the small scale category whilst 31% and 28% were micro and medium enterprises respectively (*Figure 5i* below). The represented subsectors were casting/founders, fabricators and assemblers, consultancy and services and distributors and retailers (*Figure 5ii* below).

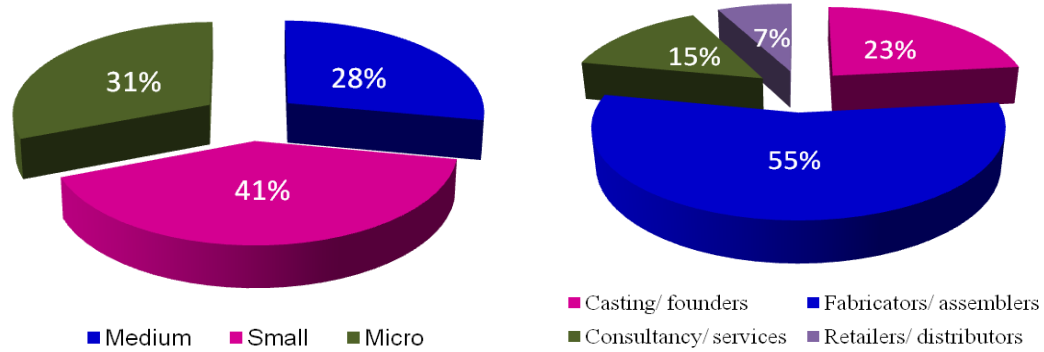


Figure 5: Representation in sample size: i) Left – SMEs representation ii) Right – Sectorial representation

Geographically, Harare constituted the largest representation at 47%, followed by Bulawayo and Mutare at 17 and 12% respectively (*Figure 6* below). Kwekwe, Redcliff and Gweru were

noted for low representation which is consistent with the non-operation of ZISCO and its downstream and upstream impacts.

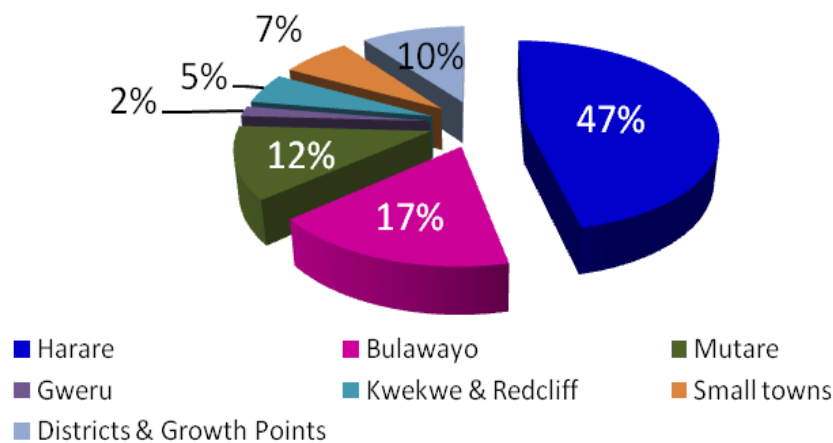


Figure 6: Geographical representation

2. Key Findings

This part is the heart of the study where key findings were documented, described and analyzed using quantitative and qualitative methods with the aid of the SPSS statistical software as well as Excel spread sheets. The findings were systematically structured based on the UNIDO 7 industrial diagnostic dimensions approach.

2.1 SMEs Ownership Pattern in the Engineering Iron and Steel Sector of Zimbabwe

The ownership structure of the Small to Medium Enterprises (SMEs) is presented in *Figure 7* below. The majority of the players are a Shareholding with Non-Traded Shares (ShWnts) (46%) and Sole Owners (36%).

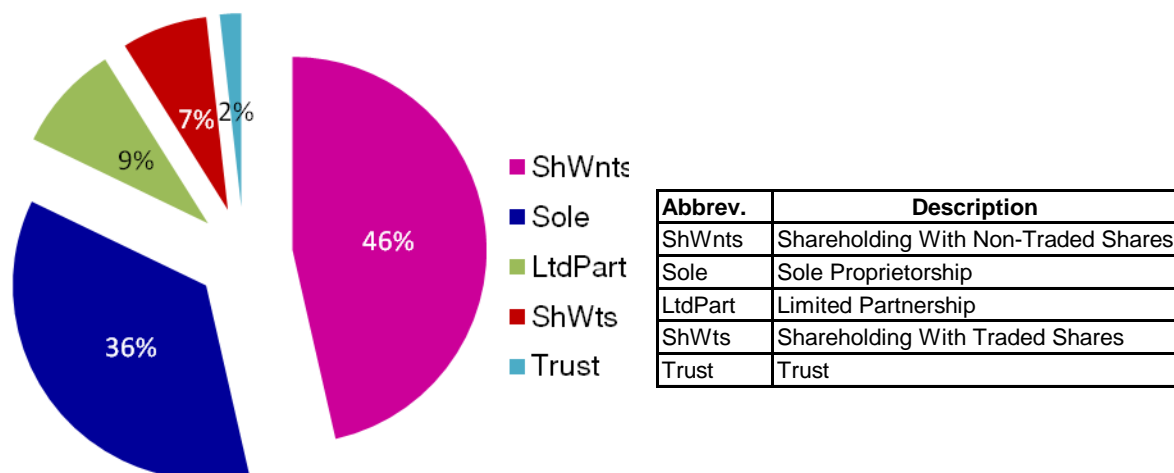


Figure 7: Ownership patterns in the EIS of Zimbabwe

Since the majority of the companies are owned by Sole Proprietorship and Shareholding with non-traded shares, corporate governance is of prime importance to ensure the sustainability of the industry. This ownership structure has also a bearing on vertical and horizontal integration, the extent of linkages and expansion and growth of the sector.

2.2 Growth of the Engineering Iron and Steel Sector

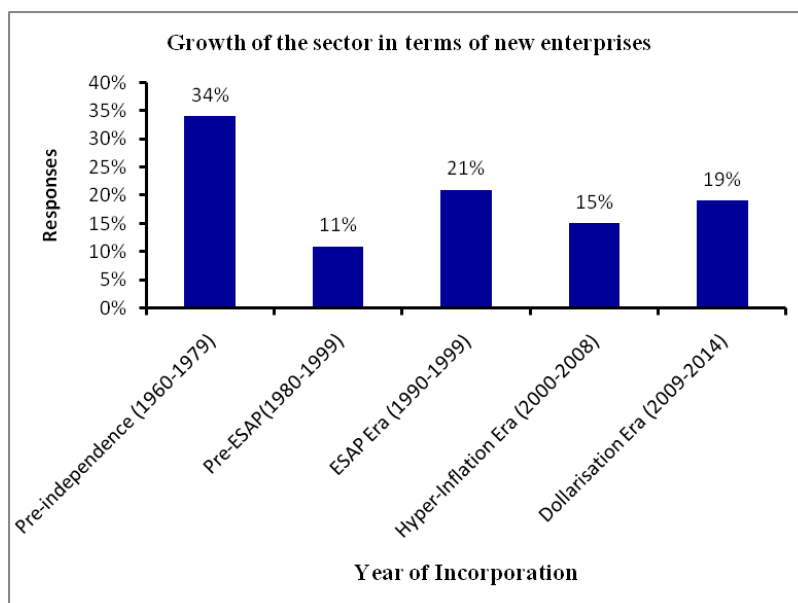


Figure 8: Growth trends in terms of formation of new enterprises

The statistical distribution (*Figure 8 above*) still show that the majority of companies in the Engineering Iron and Steel (EIS) sector of Zimbabwe were established before 1980 (34%) followed by the period between 1990 and 1999 (21%), then 2009 – 2014 (19%). The significance of the companies formed before 1980 could be attributed to the strong industrial polices for import substitution during the UDI era.

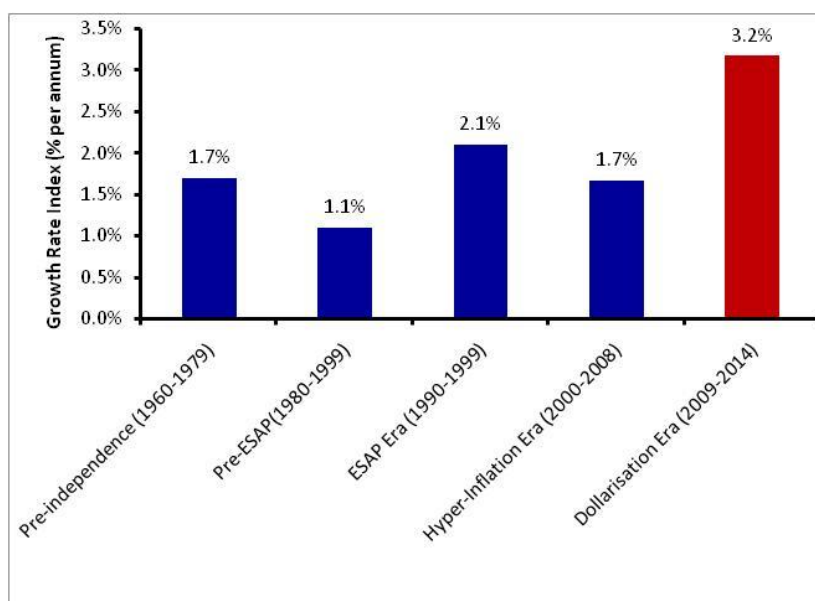


Figure 9: Growth trends in terms of formation of new enterprises

The EIS Sector growth rate was almost stagnant from the pre-independence era to the hyperinflation era (*Figure 9 above*). This stagnancy could be attributable to lack of sector specific policies aimed at improving the EIS Sector and promotion of formation of new enterprises for the period assessed. The slight increase after the hyper-inflationary era was enhanced by dollarization as well as some political stability at the formation of the government of national unity.

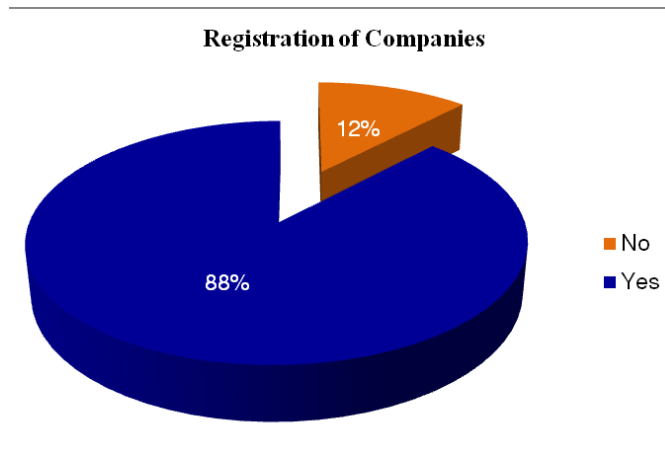


Figure 10: Extent of formalisation in the EIS of Zimbabwe

About 88% (Figure 10 above) of the companies surveyed are registered. The 12% which is unregistered is mainly attributed to the micro-sector which has a significantly large informal population. On interviewing they cited the costs associated with registration and lack of information as reasons why they have not made efforts to register their operations.

2.3 Sectorial Representation

The direct actors in the engineering iron and steel sector are mainly divided into four broad subsectors namely i) foundries and metal formers, ii) fabricators and assemblers, iii) consultancy and services and iv) retailers/distributors. It was noted that there are some players who do a combination of activities like Foundry and fabrication, etc. The metal formers/foundries deal with the process of converting iron ore and raw steel into the basic inputs for the downstream activities. The fabricators and assemblers are involved in the manufacture of components and fabricated products of iron and steel as well as the assembling of machinery, equipment and subsystems. This sub-sector comprise of the agricultural equipment, mining equipment, construction equipment, electrical, domestic, refrigeration equipment and other general engineering works. The consultancy and services sub-sector included maintenance contractors and consultancies, construction contractors and consultancies, repairs of electrical equipment, etc. It was observed that manufacturers, distributors and retailers were also now involved in direct selling to individual customers. The distributors and retailers were mainly involved in the supply of raw steel, components, accessories and assembled equipment and machinery to downstream consumers.

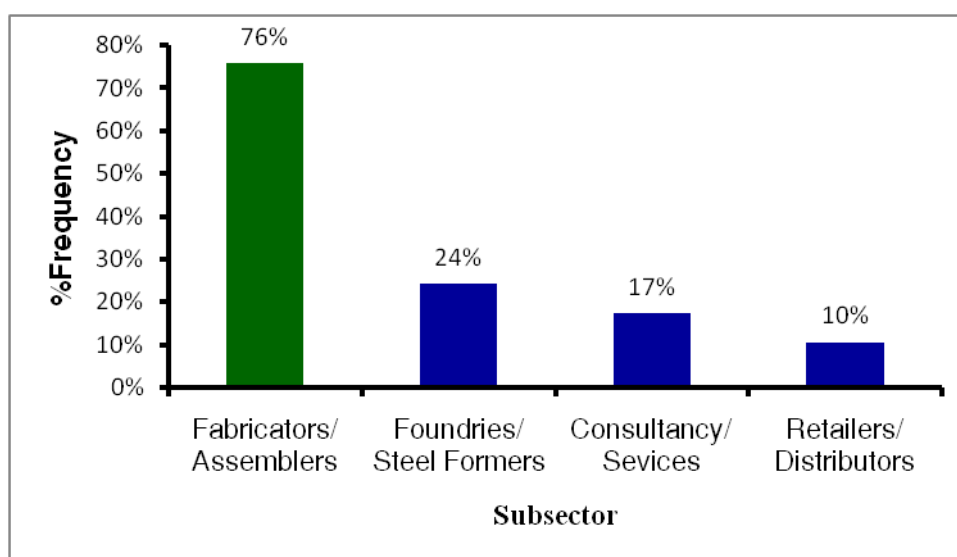


Figure 11: Sectorial representation in the EIS of Zimbabwe

According to the statistics of the study, fabricators and assemblers represent about 76% of the sector, followed by the Foundries and Metal formers at 24%, with consultancy services and retailers/distributors at 17% and 10% respectively (Figure 11 above). It is worth noting that in the current economic environment, most of the upstream players have also resorted to direct selling and hence the small percentage of retailers and distributors for the sector. Considering the comparatively large percentage of fabricators/assemblers, it was clear that the upstream actor, which is the metal converters/foundry was not adequately capacitated to meet the demand of the downstream actors.

2.4 Cost of Space in the Engineering Iron and Steel Sector of Zimbabwe

2.4.1 Size of floor space

The mean floor space for the engineering iron and steel sector is about 8170square metres (sqm) per firm (Figure 12 below). This implies that generally, the sector has adequate space for conducting its operations.

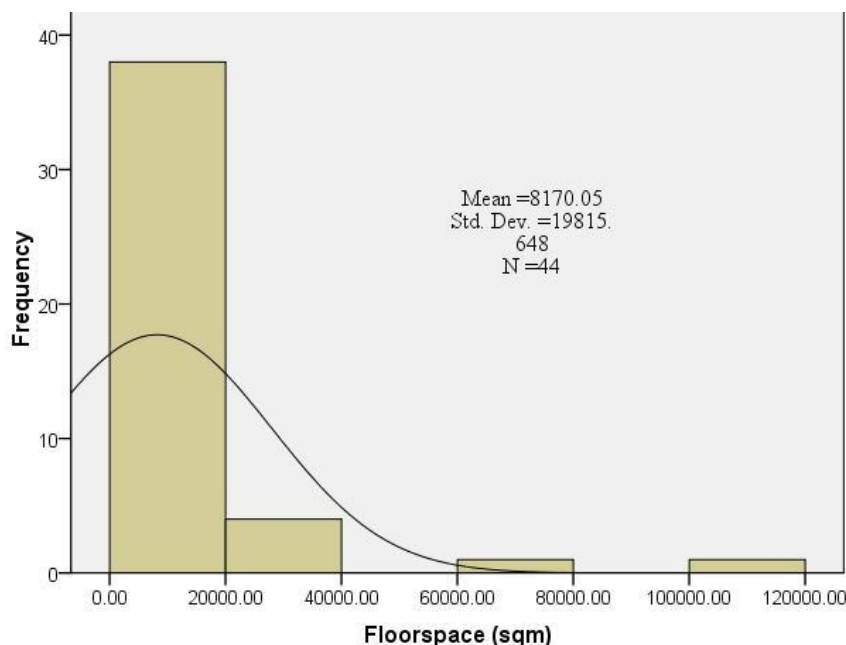


Figure 12: Floor space distribution in the EIS of Zimbabwe

2.4.2 Ownership of floor space

Figure 13 below shows that about 60% of the firms in the sector own their operating premises. This is a competitive edge considering that the cost of rentals is eliminated. Ownership also implies stability in decision making for the operations.

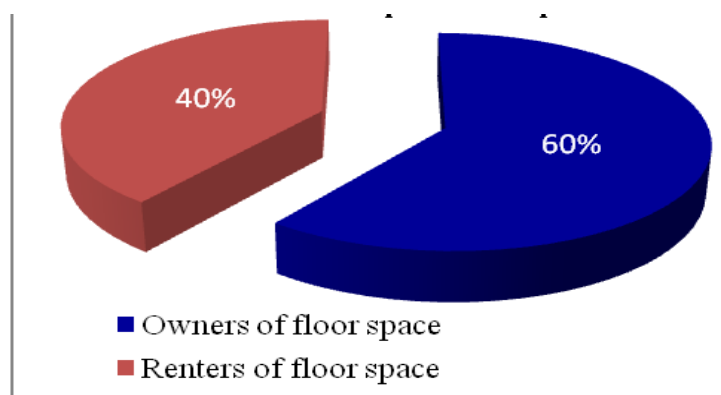


Figure 13: Ownership of floor space in the EIS of Zimbabwe

2.4.3 Cost of Rentals

The mean monthly rental cost per square metre was statistically found to be USD2.90 (Figure 14 below). The rentals are cheap in comparison with the regional monthly average of USD5.50 per square metre (Knight Frank, 2012). Monthly rental cost for South Africa is about USD6.50 per square metre. In the EU, the average monthly rentals price is USD9.00/sqm implying that the rental cost in Zimbabwe is generally competitive.

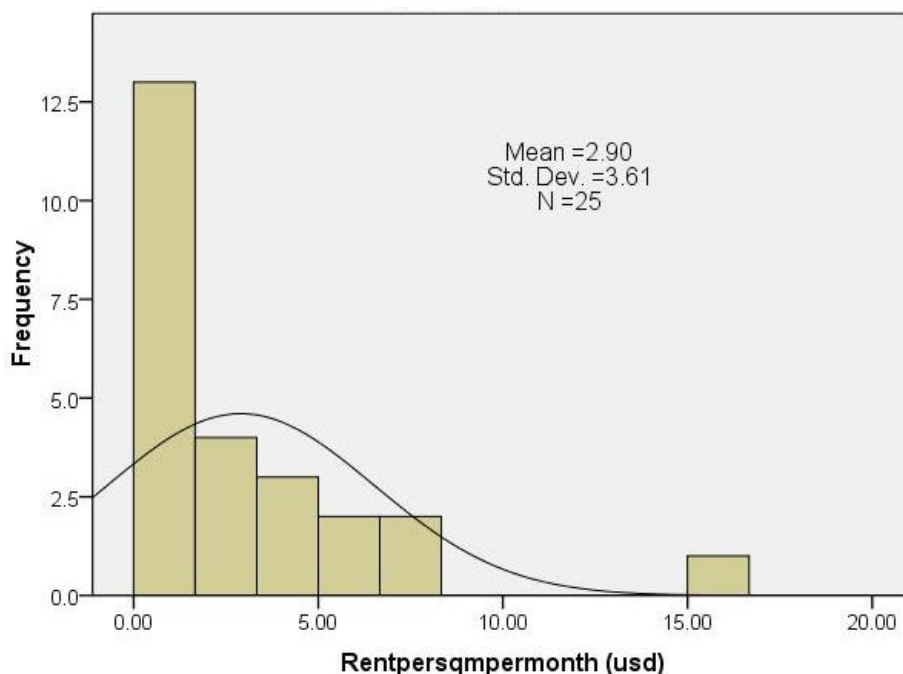


Figure 14: Cost of floor space in the EIS of Zimbabwe

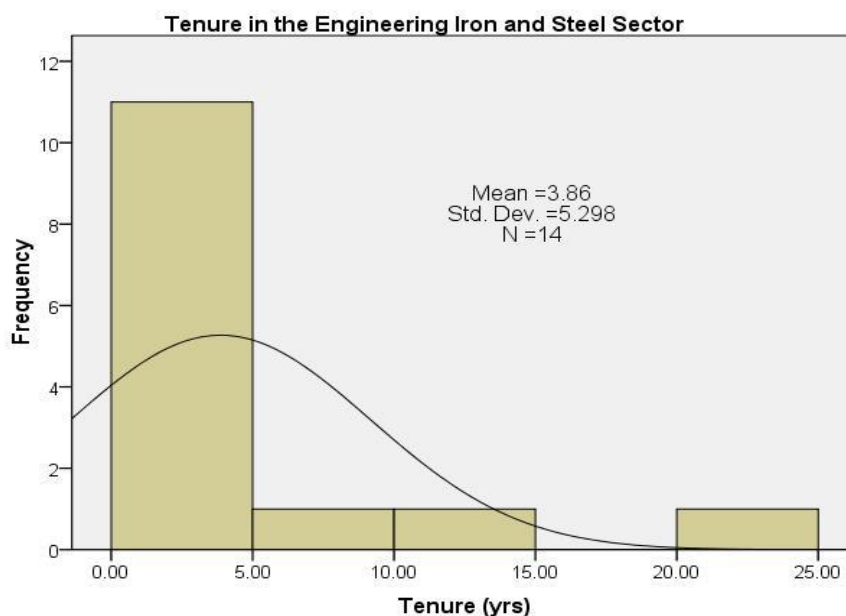


Figure 15: Tenure of leases in the EIS of Zimbabwe

The average tenure is about 3.86 (4 years) as presented in Figure 15 above. The tenure was short mainly for the micro and small scale firms and limiting their business opportunities.

2.5 Sources of Inputs and Supplies

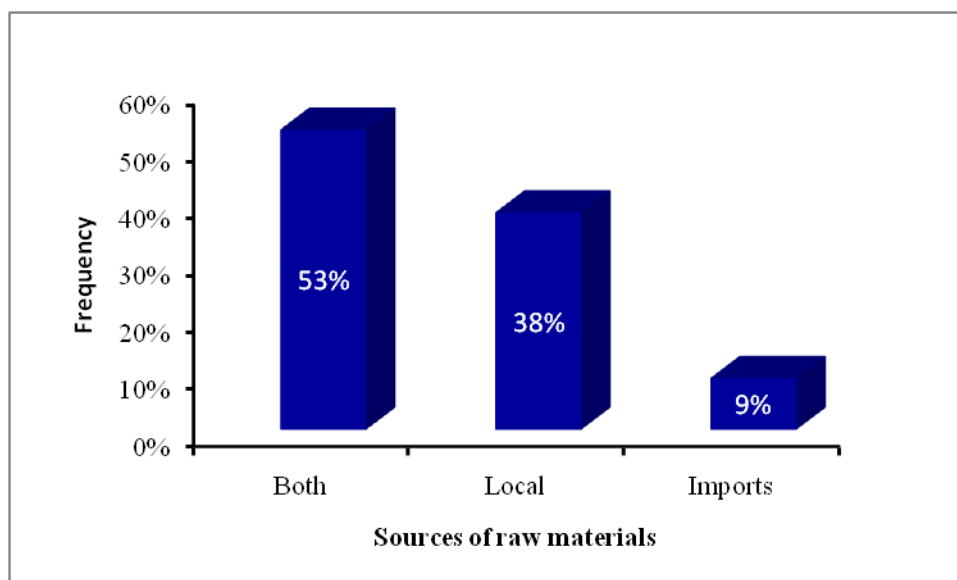


Figure 16: Sources of raw materials in the EIS of Zimbabwe

The majority of the actors in the study used a hybrid of imported and local raw materials (Figure 16 above). In total, about 62% (53+9) imported their raw materials. Despite the significant percentage of those who sourced their raw materials locally at 38%, a significant number of respondents claimed that their agents would have imported the raw materials and hence it is difficult to extract the actual local component. Good examples are the long and flat steel products bought locally by fabricators and assemblers, which would have been bought from local distributors who would have imported them mainly from South Africa and China (Figure 17 below). This is despite the fact that the same long and flat steels could have been bought locally, had ZISCO Steel been operational. Assuming that about 50% (by value) of those who both imported and sourced locally, imported their raw materials, and that 50% (by value) of those who only sourced raw materials locally, indirectly imported, it was concluded that about 54.5% (by value) imported their raw materials. This fact is essential when calculating the Gross Domestic Product (GDP) for the sector.

2.5.1 Sources of Imports

South Africa and China were cited as the major sources of imports with 55%, 23% respectively and India following at 6%. The closeness of South Africa to Zimbabwe, buoyed by its assertive policies on exports to the region has enhanced the competitiveness of South African exports on the African continent. Key informant interviews have also revealed the impact of value chain linkages created by the significant number of influential diasporans in South Africa as enhancing the importation of engineering, iron and steel products from South Africa. The products and services include long and flat products, completely fabricated products, machinery and components, installations, project management services, maintenance and repair work as well as engineering consultancy.

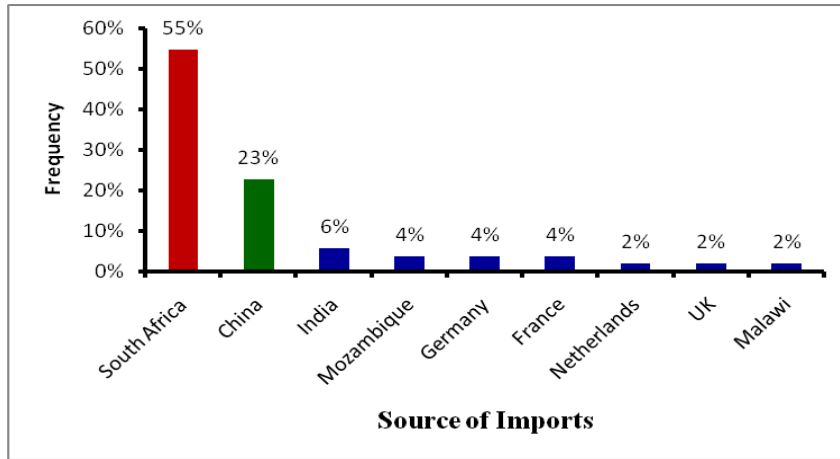


Figure 17: Sources of imports in the EIS of Zimbabwe

According to Zimtrade, for the period January to September 2015, the country had a trade deficit of USD1.83 billion, with steel products, vehicle accessories and electrical energy products contributing significantly to the deficit (*Daily News, Business daily, Zimbabwe, October, 19, 2015*). From the same report, 42% of the imports were from South Africa, which is consistent with the findings of the survey. It was also noted through key informant interviews that a significant portion of goods imported from South Africa could have originated from China, via distributors and middlemen in South Africa. The net effect would be to increase the cost of raw materials and render the final products of the sector uncompetitive. The other sources of imports to a lesser extent were Mozambique, Germany, France, Netherlands, UK and Malawi (*Figure 17 above*).

2.6 Production Capacity and Technology Use

2.6.1 Capacity utilisation

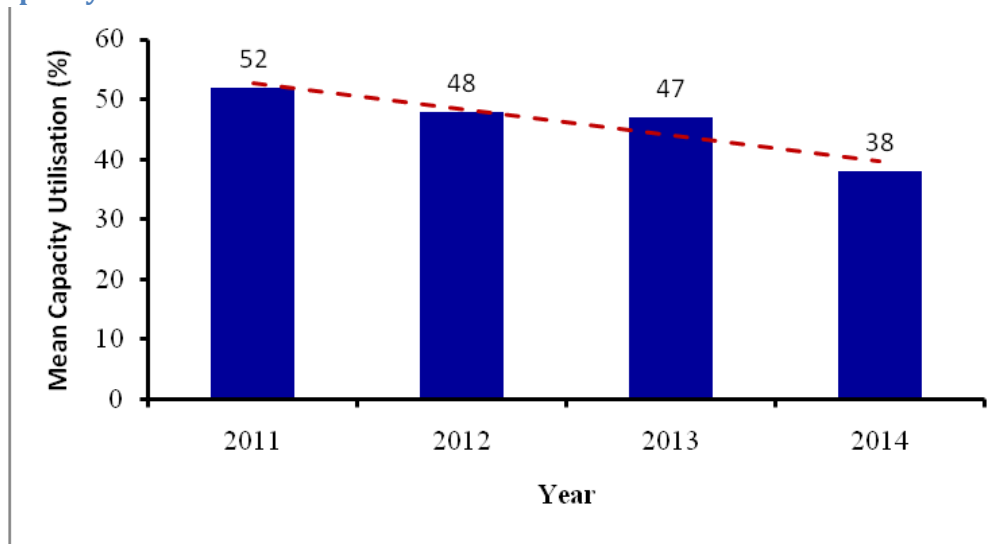


Figure 18: Mean capacity utilisation trend for 2011-2014

Capacity utilisation dropped from 52% in 2011 to 37% in 2014 (*Figure 18 above*) due to a host of challenges described later in the section. Despite a slight decrease witnessed between 2012 and 2013, there was a significant decrease in utilisation across all sectors from 2011 to 2014.

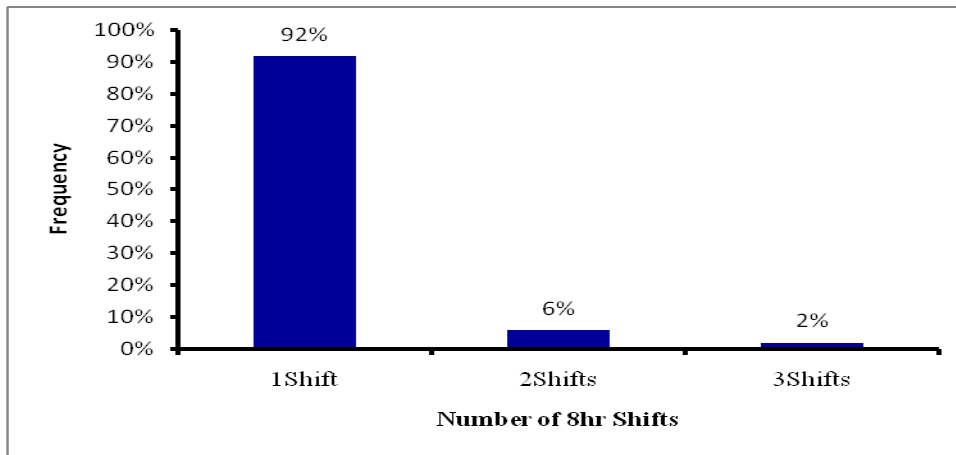


Figure 19: Existing working patterns in the EIS of Zimbabwe

Figure 19 presented above shows that from the potential 3shifts/day working pattern, 92% of the respondents are only utilising one shift, whilst 6% and 2% were utilising the two shift and the three shift respectively. Considering that the capacity utilisations presented in Figure 18 were based on a 1shift per day basis, the adjusted capacity utilisation based on a 3 day shift becomes even lower. Figure 20 below presents the adjusted capacity utilisations which are very low; ranging from 13 to 17%.

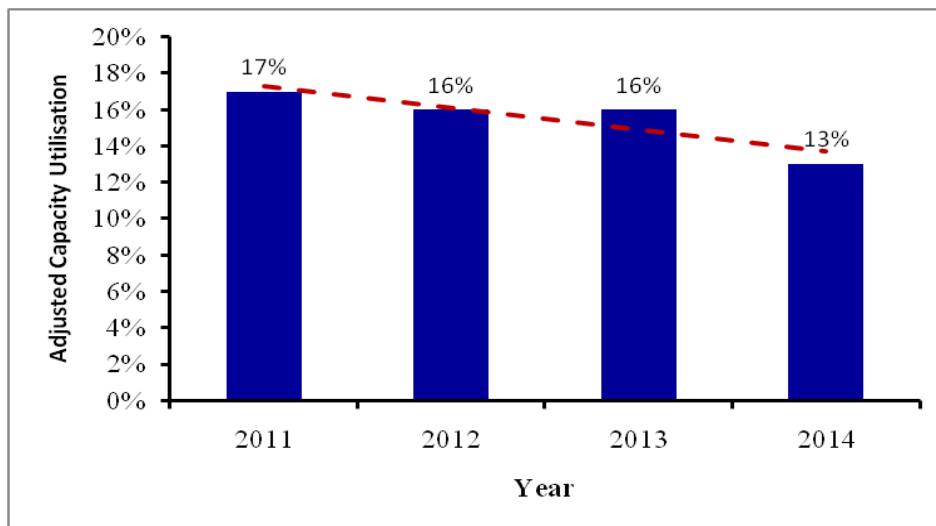


Figure 20: Adjusted capacity utilisation for the period 2011-2014

2.6.1.1 Reasons for low capacity utilisation

The reasons for the extremely low and decreasing capacity utilisation are presented in Figure 21 below.

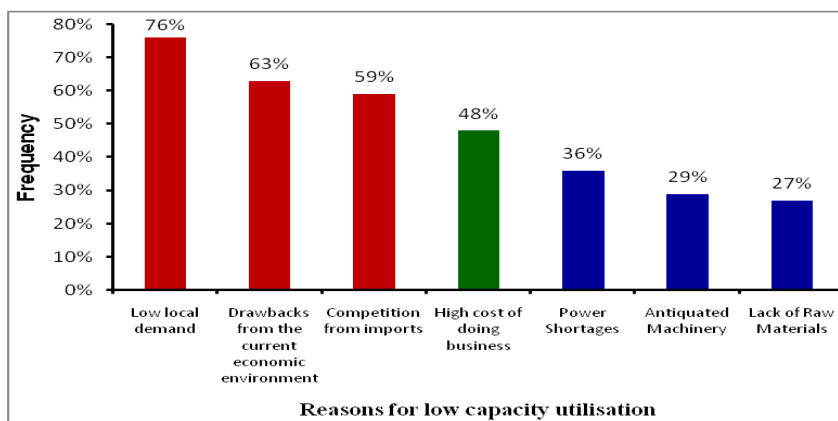


Figure 21: Reasons for low capacity utilisation

The four main reasons for low and declining capacity utilisation according to rank were low local demand, drawbacks from the current economic environment, competition from imports and high cost of doing business (*Figure 21 above*). The high cost of doing business, power shortages, antiquated machinery and lack of raw materials were also cited as moderate reasons for low capacity utilisation. However, the impact of power shortages, antiquated machinery and lack of raw material, were overshadowed by the low local demand, drawbacks from the current economic environment and stiff competition from imports. It is therefore important to focus on ways of stimulating local demand, improving competitiveness to compete with imports, improvement of the ease of doing business index and regulating the importation of goods that can be produced locally.

2.6.2 Technology type

The players in industry mainly use manual machinery (*Figure 22 below*), all respondents in the micro to small category mainly use basic tools of the trade. Automation scored lowly from all the respondents interviewed. The dominance of manual machines may also infer that traditional engineering firms still use the same machinery and equipment that they used before 1980 (more than 3 decades ago). The use of the manual machinery and less advanced technology may also imply less competitiveness as compared to imports which are assumed to be produced by more advanced technologies with lower production cost per unit.

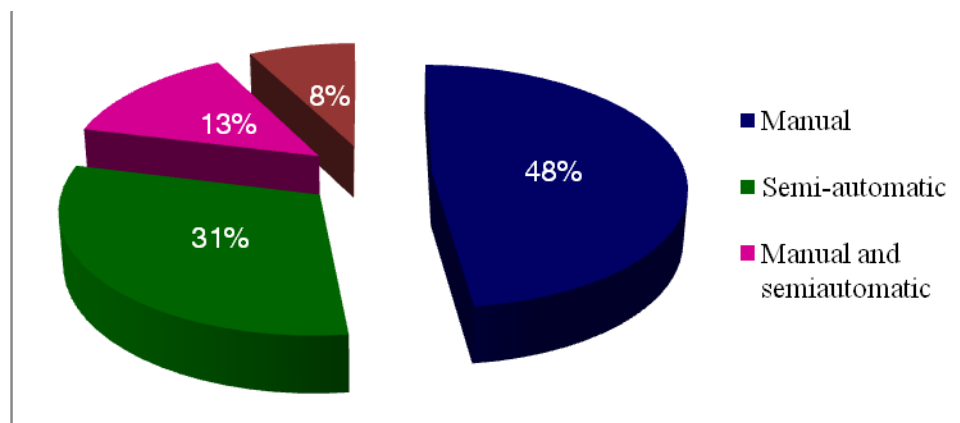


Figure 22: Technology types in the EIS of Zimbabwe

2.6.2.1 Technology performance rating

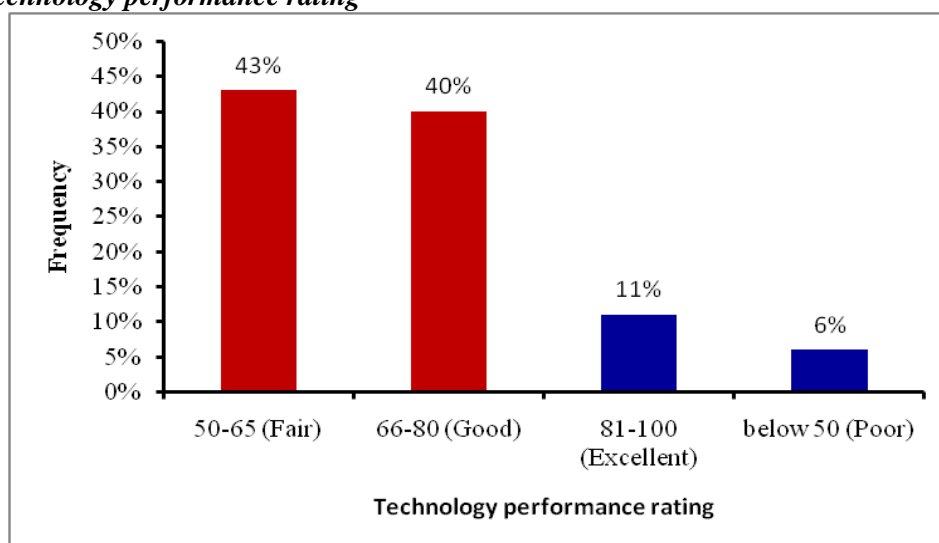


Figure 23: Technology performance rating in the EIS of Zimbabwe

The technology employed was viewed to be moderate in terms of performance, labour intensity, energy efficiency, ease of use, maintainability and reliability. Most of the technology was in the 50-65% range, the first three factors having a major influence on the moderate scoring. The easiness of use, reliability and maintainability of the prevailing technology buoyed the rating of technology as can be seen in the fair (50 – 65% and good range (66-80%) category (*Figure 23 above*). In summary, about 94% of the firms rated their technology 50% and above. The perception of the respondents implies that the firms are generally satisfied with their existing technologies. As a result there may not be much drive from the owners to invest in newer technologies. CAPEX justification of investment in new and appropriate technologies for critical subsectors is essential to enhance the competitiveness of the sector.

2.6.2.2 Technology Competitiveness

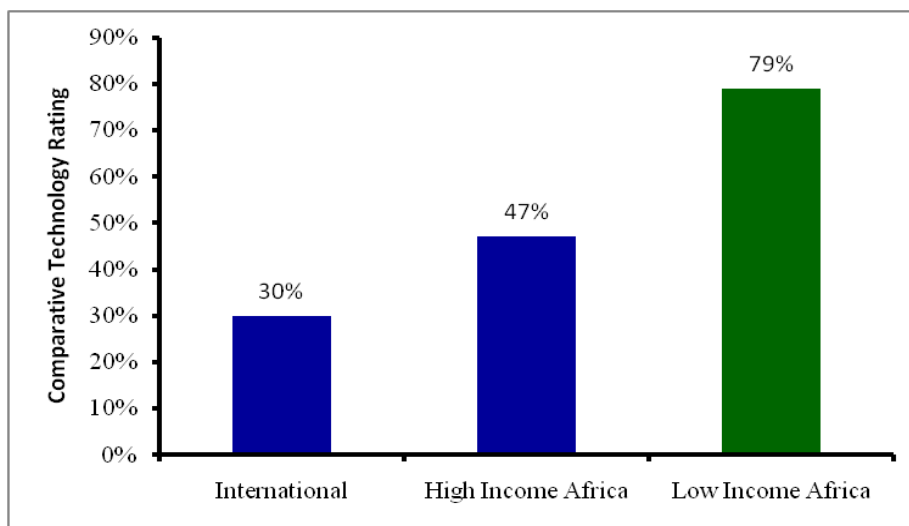


Figure 24: Technology competitiveness at local, regional and international level

On average, the respondents rated their equipment highly with local competitors and low income African countries as shown in *Figure 24* above. However the local technology was seen to be lagging behind best performing African economies and the international market. Considering that there is stiff competition from high income Africa like South Africa, and internationally, it may imply that the superior technology is a competitive edge.

2.6.3 Computer Aided Design and Manufacturing

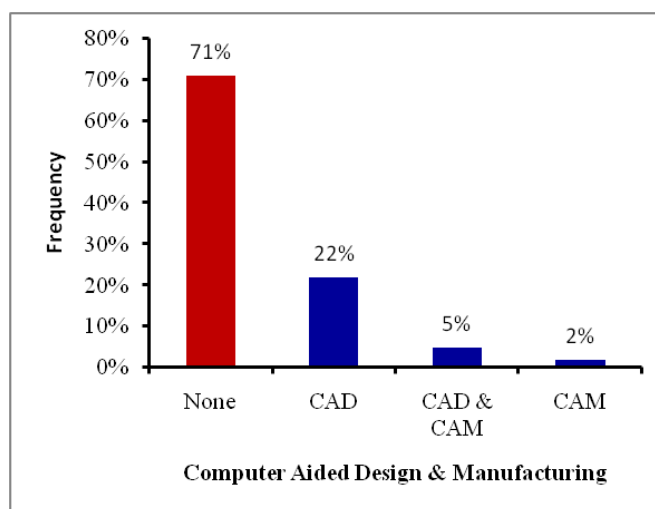


Figure 25: Use of computer aided technology in design, manufacturing and new product development

Figure 25 above shows that the application of computer technology to enhance production was still limited as 71% of respondents used none. Computer Aided Design (CAD) was used by a slightly notable number (*albeit a minority 22% of respondents*) whilst the adoption of Computer Aided Manufacturing (CAM) was still very minimal. These statistics are consistent with the majority of firms who still rely on manual machines. The minimal use of CAD/CAM also shows the limited extent to which new products can be developed in the sector to compete on both the local, regional and international markets. There exist an interesting case example where a firm which initially invested in CAD/CAM disposed of its acquisition and resorted back to manual machines citing challenges of economies of scale required to use the advanced machines in the wake of low product demand and stiff competition from imports. Another case example was that of a firm which had a CNC machine which was lying idle because of the absence of personnel with the requisite skill to operate it. Technical support services, including software, repairs and maintenance and other services for CAD/CAM were usually imported mainly from South Africa, Germany and China which made the servicing costs very high. However, productivity wise, a CNC is at least four times more productive than the manual machines and it reduces labour requirements by more than 100%. Limited technology transfer was also mentioned by the respondents saying that most of the technology and original equipment manufacturers were not keen on technology, skills and knowledge transfer resulting in new technologies becoming unsustainable.

2.6.4 Subcontracting

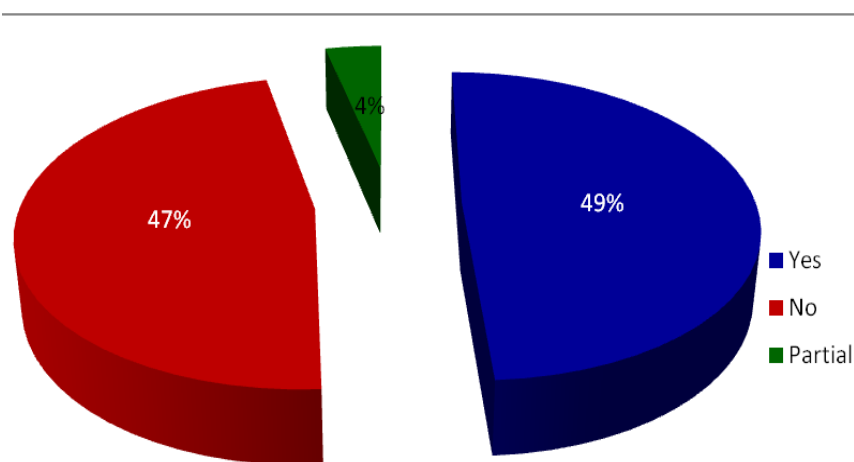


Figure 26: Subcontracting in the EIS of Zimbabwe

Almost half of the respondents have one or more of their process subcontracted (*Figure 26 above*). The main reasons for subcontracting included; lack of machinery, inadequate internal capacity and non-routine jobs which do not need dedicated machinery. The major challenge in subcontracting was quality and cost. The cost of subcontracting was either too high to compete at the local and regional market or the quality was substandard. The delivery times were also frequently not met, hence affecting the competitiveness of the value chain. The re-establishment of clusters and value chain linkages shall therefore be critical in enhancing competitiveness of the value chain. Strategic clusters in the engineering, iron and steel sector can be identified and mapped for integration into the Special Economic Zone and ZimAsset clusters.

2.6.5 Human Capacity Development

2.6.5.1 Suitability of tertiary education

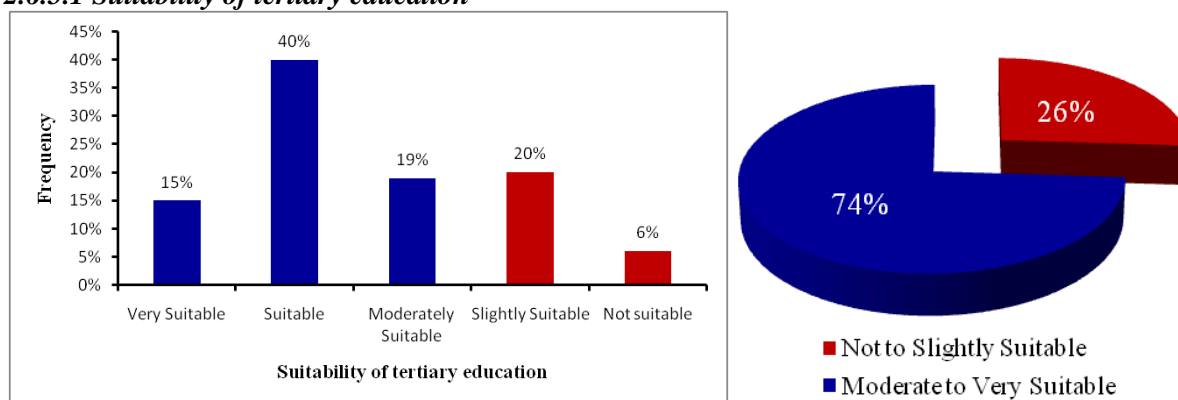


Figure 27: Suitability of tertiary education

About 73% of respondents viewed the suitability of tertiary education in Zimbabwe as moderate to very suitable (*Figure 27 above*). Graduates from polytechnics and universities are job ready, a few respondents decried the low capacity utilisation and low manning levels at establishments as having a bearing in the future on the quality of students produced as their exposure will be limited. About 26% of the respondents, who regarded the tertiary education system as slightly to not suitable to the sector, perceived it as too theoretical and hence lacked relevance to the practical needs of the engineering, iron and steel sector. The traditional micro-actors had little formal education; they practiced the skill imparted on them through experience (family, previous job or social networks).

2.6.5.2 Relevance of local research and development

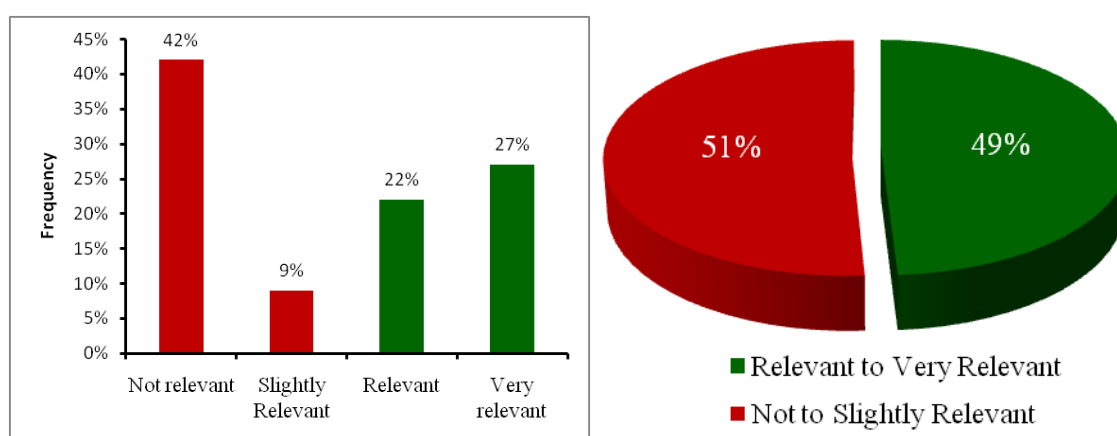


Figure 28: Relevance of local research and development

A slight majority of respondents (51%) as presented in *Figure 28 above* said that local research and development was not relevant to the needs of the industry. There is therefore a need to align local research and development to sectoral needs. Nevertheless, it is worthy noting that a significant number of respondents considered local research and development very relevant. This fact makes the alignment easier by way of emulating the links between the relevant local research and development component and industry.

2.6.5.3 Collaboration amongst industry, research and development and academia

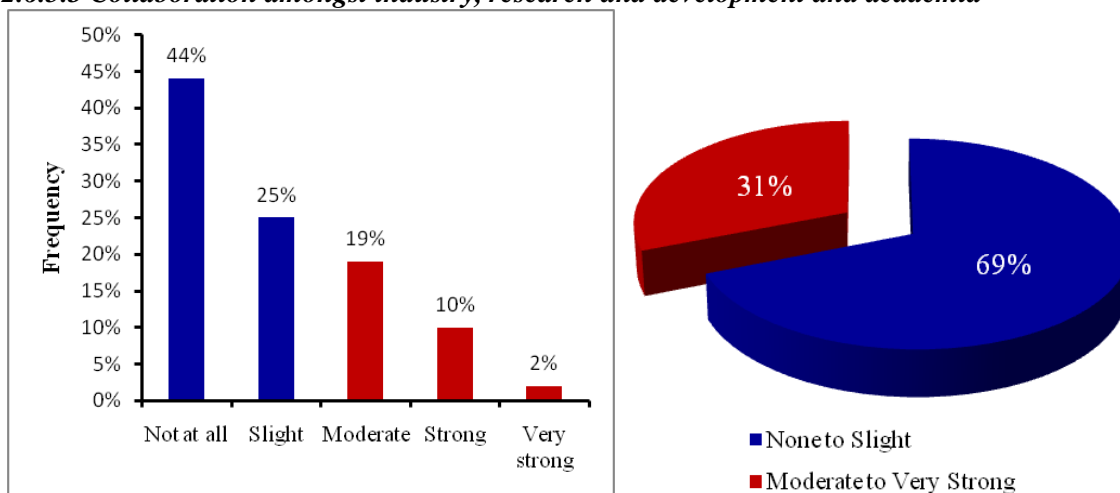


Figure 29: Collaboration between industry, research and development and academia

Most actors do not have links with teaching and research institutes for their operations, some respondents have offered places of attachment for students with a few carrying out research work. As presented in *Figure 29* above, the majority of respondents (44%) stated that there was no collaboration between their firms and the research and development and academic institutions. Generally, about 69% of the respondents regarded the collaborations as none to slightly existent. The lack of these vital collaborations is a contributing factor to lack of significant innovation, new product development and technology adoption which are evident in the sector. There is therefore room to strengthen the linkages and collaborations to enhance competitiveness.

2.7 End Markets and Trade

2.7.1 Main products in the sector

The products produced by the engineering, iron and steel SMEs according to the survey include construction steels; agricultural machinery, equipment and components; mining equipment, components and consumables; long and flat steels for general fabrication engineering; domestic appliances; pressure vessels; automobiles and components; tubes and pipes and packaging materials, electrical services and repairs and maintenance.

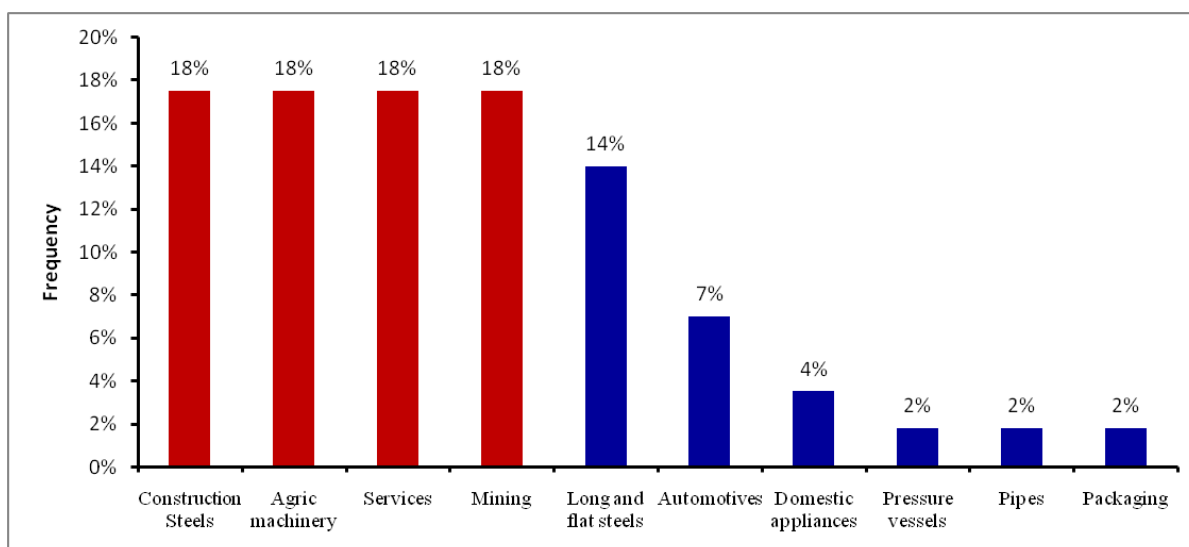


Figure 30: Main products in the EIS of Zimbabwe

The main products in the engineering iron and steel sector were dominated by agricultural equipment (18%), construction steels (18%), services (18%) as well as mining components (18%) as presented in *Figure 30* above. The automotive industry despite its potential contributed about 7% of the products of the sector. Comparing the product range to the engineering product range provided by trademap (*Coded 82 to 93-Refer to Table 1 in Part 1*), there are several product ranges which are not commonly produced by the sector which include boilers; railway, tramway locomotives, rolling stock equipment; aircraft, spacecraft and parts thereof; ships, boats and other floating structures; optical, photo, technical, medical, etc apparatus; electrical, electronic equipment; Clocks and watches and parts thereof; musical instruments, parts and accessories and arms and ammunition, parts and accessories thereof. There therefore exist opportunities for production of some of these products or their components for specific markets. From key informant interviews, it was also revealed that there was a huge gap in the medical equipment and infrastructure.

2.7.2 Main markets and customers groups

The main customer groups supplied by the engineering iron and steel sector according to respondents are individual consumers (69%); small domestic firms (51%) and medium domestic firms (47%) (*Figure 31 below*).

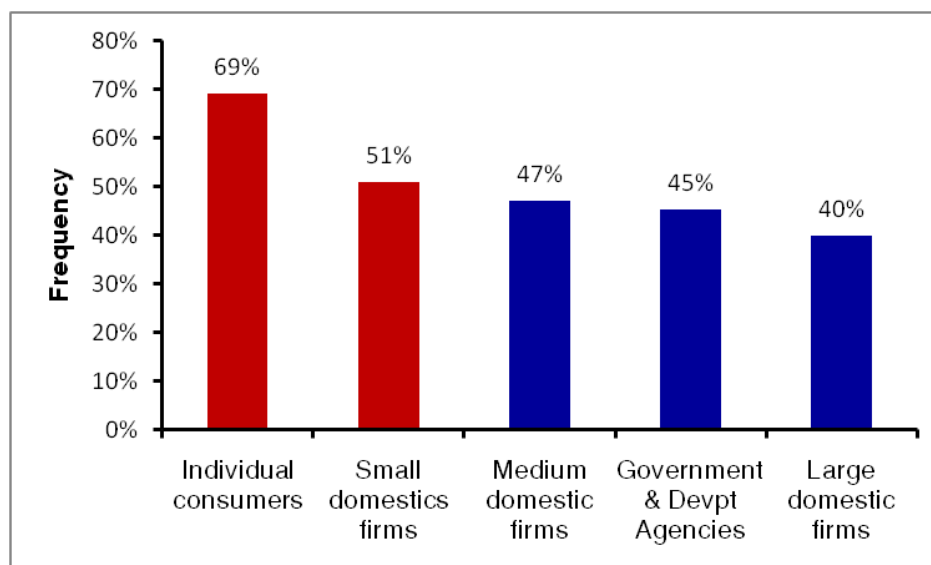


Figure 31: Main customer groups in the EIS of Zimbabwe

The significant sales to individual consumers and small domestic firms show that most of the companies in the engineering iron and steel sector are selling directly and bypassing the retailers and distributors in most cases (*Figure 31 above*). Government has the potential to become one of the major customer groups of the engineering iron, and steel sector considering the significant number of infrastructural projects ranging from power, and road to housing and other civils projects where a lot of steels and their products are consumed. However, raw materials for government projects were currently being imported and hence the local engineering, iron and steel sector was not benefiting much from the government projects. Currently the absence of formal clusters also resulted in failure of SMEs in the sector to access the market of large domestic firms. No foreign customer was a major customer implying that export competitiveness is extremely poor.

2.7.3 Competitors in the Engineering Iron and Steel Sector

The respondents cited imports (60%) and other SMEs (60%) as the major competitors in the sector (*Figure 32 below*). Large scale enterprises did not really pose a threat on the market since most of them had scaled down significantly due to the prevailing economic conditions. In the reestablishment of clusters, there is an opportunity to strengthen up linkages between SMEs and the large scale enterprises.

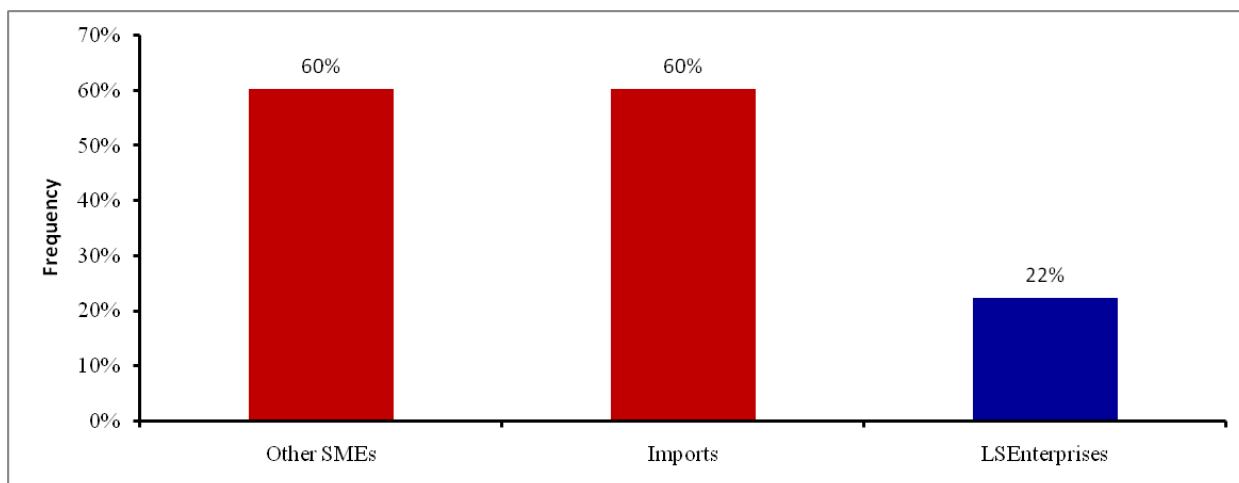


Figure 32: Main competitors in the EIS of Zimbabwe

2.7.4 Export competitiveness

2.7.4.1 Export performance of the sector

According to the respondents, 81% of the small and medium enterprises in the engineering, iron and steel sector do not export any of their products (*Figure 33 below*). On the other hand, no small or medium scale enterprises in the sector were identified as exporters of all of their products outside Zimbabwe. Of the 19% firms that are exporting, the majority of them export less than 50% of their product (*Figure 33 below*). It can be shown that exports constitute about 5% of the sales revenue. Therefore the export competitiveness of the engineering iron and steel sector is still very poor. There is a strong need to develop a policy that incentives and promotes the growth of exports in the sector.

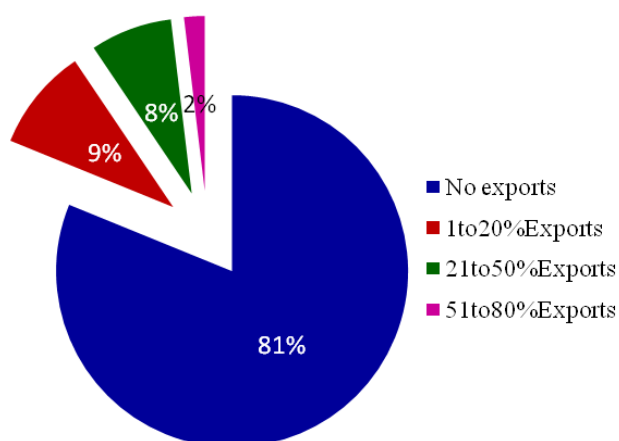


Figure 33: Export competitiveness of the EIS of Zimbabwe

2.7.4.2 Exporters by subsector

Fabricators and/or assemblers contributed the highest proportion of 35% to the country's exports in the sector, followed by consultancy and foundries respectively as presented in

Figure 34 below. Considering the huge infrastructural and mining activities within the SADC region, there are opportunities to increase the market share for foundry/primary steel products, consultancy and other engineering and technical support services. The major handicap however is the absence of ZISCO or any other major iron and steel producing company in the country. There is an adage in the sector that says, “Steel cannot be transported in two directions”. As long as the raw iron and steel is imported into the country for downstream operations, it is almost impossible to export it back competitively as a value added product. This could be one of the reasons why it is difficult to penetrate the South African and Chinese markets. The exceptions to the rule are EU, China, South Korea and Japan since they have developed their unique competencies through advanced technologies, and high production efficiencies as well as closeness to the huge markets offered by their closeness to huge markets both at their local, regional and international level.

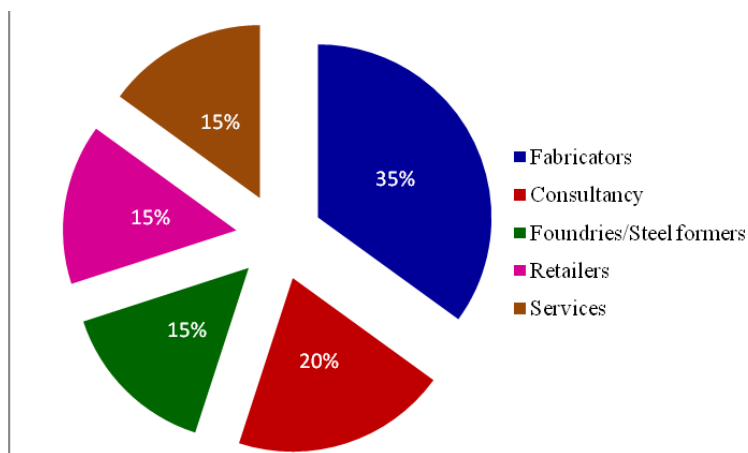


Figure 34: Exporters by sub-sector in the EIS of Zimbabwe

2.7.4.3 Export destinations

According to the respondents (Figure 35 below), the major export destination markets for engineering iron and steel products from the small and medium enterprises are Zambia (33%), Mozambique (21%) and Malawi (17%). Being low income states, these nations offer a market for local products. The pie chart also shows that the sector only competes in low income Africa within SADC and adjacent to Zimbabwe.

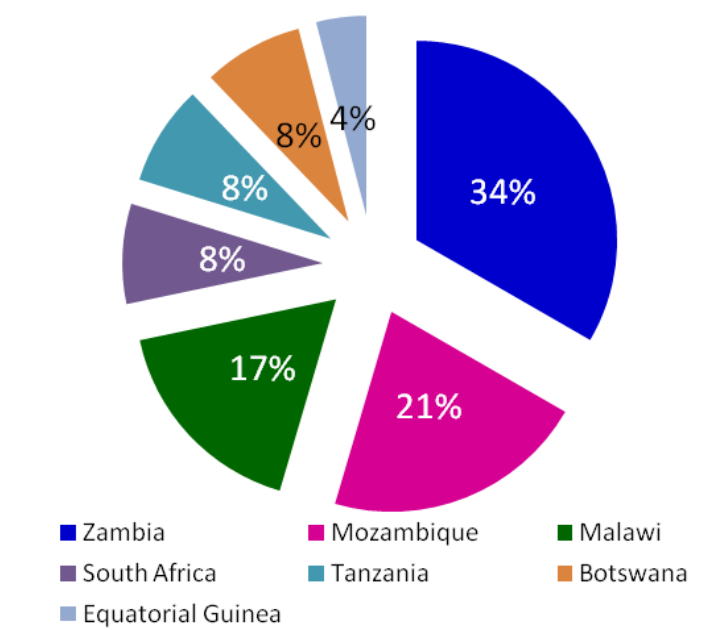


Figure 35: Major export destinations

The low score on high income Africa (SA) and no exports beyond the region shows that the sector cannot yet compete with the high income regions like the EU, USA and middle income regions like Asia and South America. There are therefore opportunities to i) grow the regional export market, penetrate Africa at large and her high income countries, ii) develop the international market by exploring the Asian, EU and the Indian market by linking the local value chains to the international ones. The low exports of engineering, iron and steel products to South Africa (SA) is worrisome considering that it is the largest trading partner to the country with 44% of all imports by value coming from SA according to Zimtrade. In the engineering iron and steel sector, the export competitiveness of South Africa over Zimbabwe is strengthened by the strong export policies that SA have, the swiftness in implementation as well as the fact that Zimbabwe is no longer producing the raw steel and primary products since the demise of ZISCO. On the other hand South Africa has major producers of iron and steel primary products including Arcelor Mittal, Trident and Highveld amongst others. South Africa also has an iron and steel production capacity which is adequate to produce for the whole SADC region and still remain with excess production capacity. On the other hand, Zimbabwe's iron and steel production capacity is currently insignificant.

2.7.4.4 Trade Balance

Table 9: Trade Balance for the Engineering, Iron and Steel Sector for the period 2009-2012 (ZEPARU, 2014)

Code	Products	Exports (USDMillion)	Imports (USDMillion)	Trade Gain/Deficit (USDMillion)	Average Gain/Deficit (USD Million/yr)
'72	Iron and steel	561.4	444.3	117.1	23.42
'73	Articles of iron or steel	54.5	595.4	-540.9	-108.18
'74	Copper and articles thereof	42.48	59.5	-17.02	-3.4
'82	Tools, implements, cutlery, etc of base metal	18.6	98.8	-80.2	-16.04
'76	Aluminium and articles thereof	11.74	72.1	-60.36	-12.07
'83	Miscellaneous articles of base metal	10.1	64.2	-54.1	-10.82
'81	Other base metals, cermets, articles thereof	0.155	0.88	-0.73	-0.15
'79	Zinc and articles thereof	0.155	3.81	-3.66	-0.73
'80	Tin and articles thereof	0.009	0.81	-0.8	-0.16
'78	Lead and articles thereof	0	6.8	-6.8	-1.36
	Totals	699.139	1346.6	-647.47	-129.49

Table 9 above shows that there was an average trade deficit of USD129Million for the period 2009 to 2012 for the engineering iron and steel sector. This was consistent with the little export volumes revealed by the survey. It is therefore mandatory to develop policies that enhance export competitiveness for the sector.

2.7.5 Obstacles to growth of products and markets

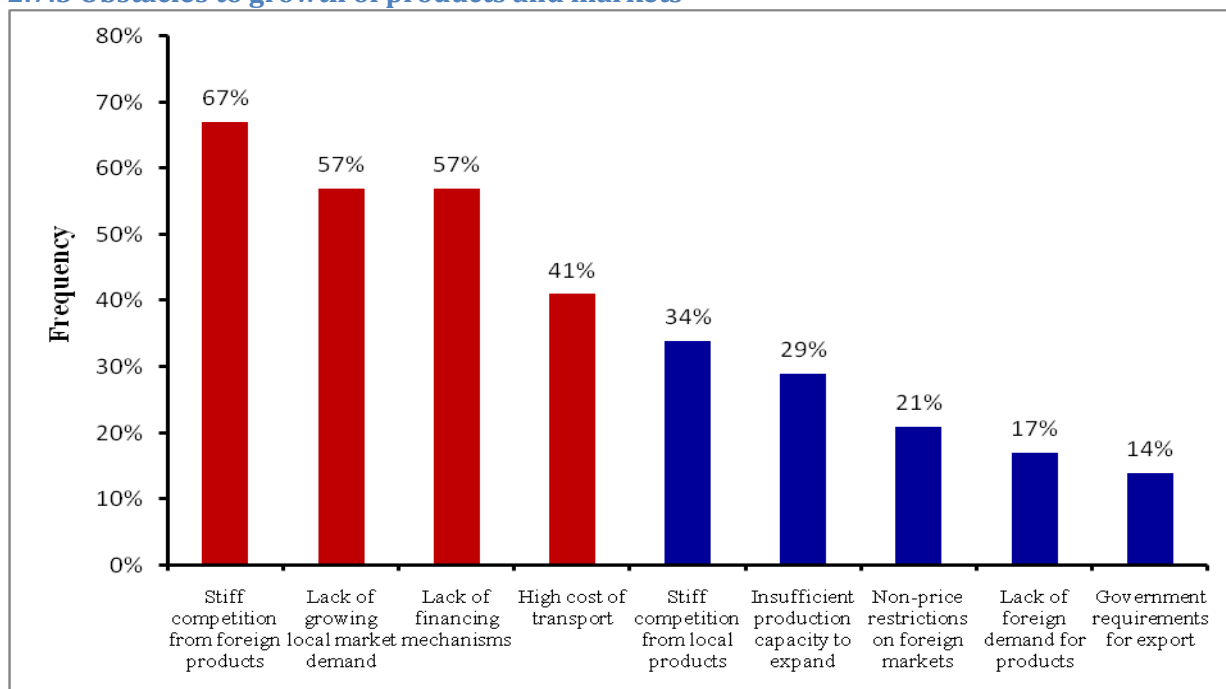


Figure 36: Obstacles to growth of products and markets

As presented in *Figure 36* above, stiff competition from foreign products on the local market, lack of growing local market demand and lack of financing mechanisms were cited as the major obstacles to the growth of products and markets. They cited the influx of cheap and sometimes substandard products as a major setback to growth of products and markets. These same products are flooding all the markets in the region and South Africa was also a channel through which these products were indirectly imported into Zimbabwe. Individuals can also directly import goods and services and hence the need for reviewing the regulation of importation of goods in a similar way that the importation of poultry products into the country was regulated. Interesting examples cited by key informants were i) the importation of medical equipment by government medical institutions instead of buying from the local medical equipment suppliers and ii) the intended purchase of over 500 buses by local institutions, whilst the local automobile sector's capacity utilisation was way under 10%. Since iron and steel products are heavy, the cost of transport was also viewed as heavy and hence negatively affecting the growth of products and markets.

2.7.6 Price drivers in the engineering iron and steel sector

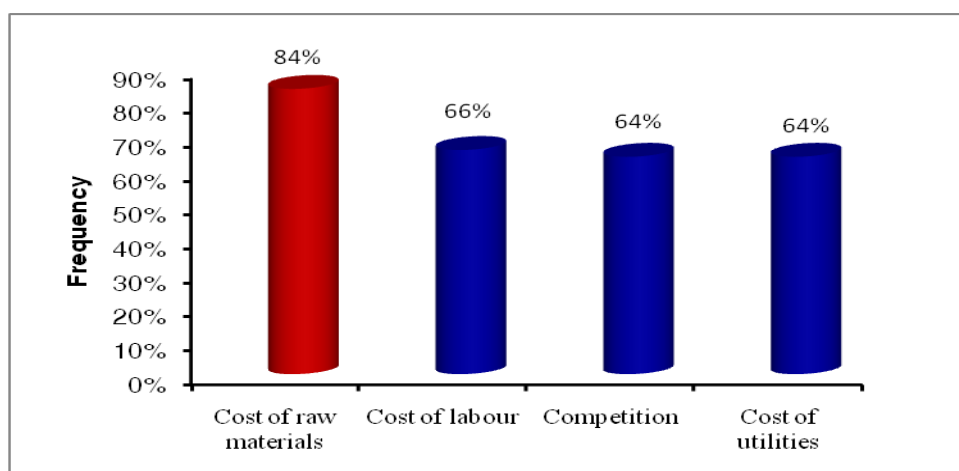


Figure 37: Price drivers in the EIS of Zimbabwe

The major price drivers according to rank (*Figure 37 above*) were cost of raw materials, cost of labour, competition and cost of utilities. About 84% (*Figure 34 above*) of the respondents in the sector said the cost of raw material was a main price driver. This was consistent with the fact that most of the raw materials were imported since ZISCO steel and the steel producing cluster in Redcliff and Kwekwe ceased their operations. According to key informants in the sector, duty on imported steel was 40% whilst prefabricated steels were also allowed into the country. This high duty rendered the cost of raw materials very high and hence not competitive as compared with imported finished or prefabricated steel. The cost of raw materials was even worsened by the long transportation of heavy steel to production firms in the absence of a reliable railway transport network and local production. In some instances, the heavy steel raw materials is transported first by sea to the ports, then by road/rail to the border; and mainly by road to Harare and then distributed countrywide by road to different demand centres/sites. This multiple handling and the relatively higher cost of road than rail push the cost of raw materials further up.

About 66% mentioned cost of labour as a price driver implying that there is need to review the labour laws and align them to productivity. It is also important to consider labour efficient technologies. According to the World Economic Forum (WEF) Global Competitive Rating (GCR) 2014-15, the country was ranked 137/144 on labour market efficiency and in the bottom 3 in terms of hiring and firing practices, flexibility of wage determination and pay and productivity indicators. The output per unit of production (*USD2000.00*) was more than 5 times lower than the regional average of about *USD10600.00*. Thus the high cost of labour cited by the respondents was consistent with the WEF GCR report. Key informants cited the Germany labour law model as a good one for emulation.

About 64% of the respondents cited the cost of utilities as a price driver. For example, the cost of electricity was allegedly 43% higher than the regional average. According to the ZEPARU report (2014), the effective electricity tariff of 14.5cents/ kWh was about 43% higher than the regional average of 8.3cents/kWh. Thus the higher cost of electricity renders the local engineering, iron and steel products and services more costly than those of regional competitors.

2.7.7 New product development

According to the needs assessment study, 45% (*Figure 38 below*) of the respondents cited that new product development was possible with the current equipment and/or technology. It implies that there is opportunity to develop new products for new and existing markets.

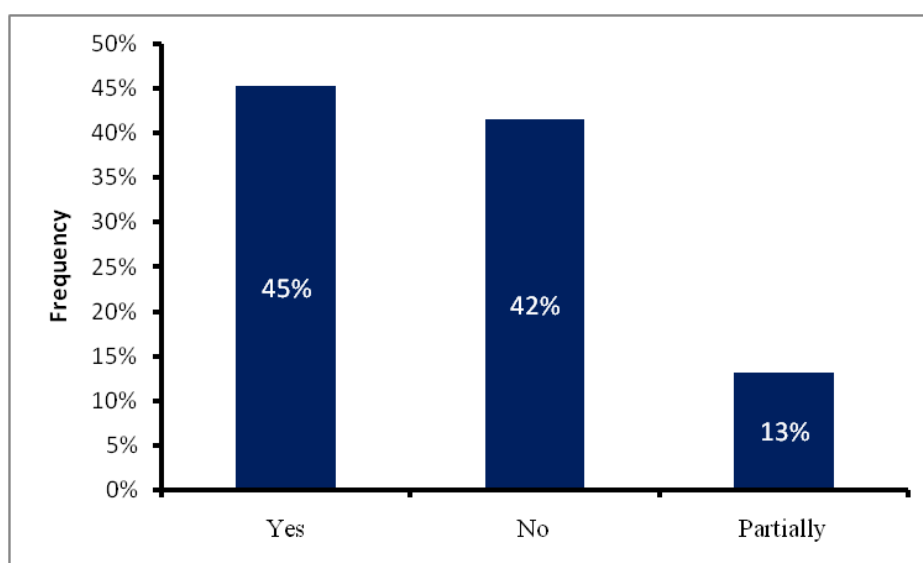


Figure 38: Opportunities for new product development in the EIS of Zimbabwe

A significant number of respondents (40%), however (*Figure 38 above*) also said that new product development was not feasible with their existing circumstances. The implications are that competitiveness on both the local and export front becomes hugely compromised considering the dynamic changes on the market for engineering products due to technological advancement and ever changing human needs and wants.

2.7.7.1 Hindrances to new product development

Obsolete technology, lack of technical support, lack of funding as well as lack of skills were identified as the leading causes for non-development of new products.

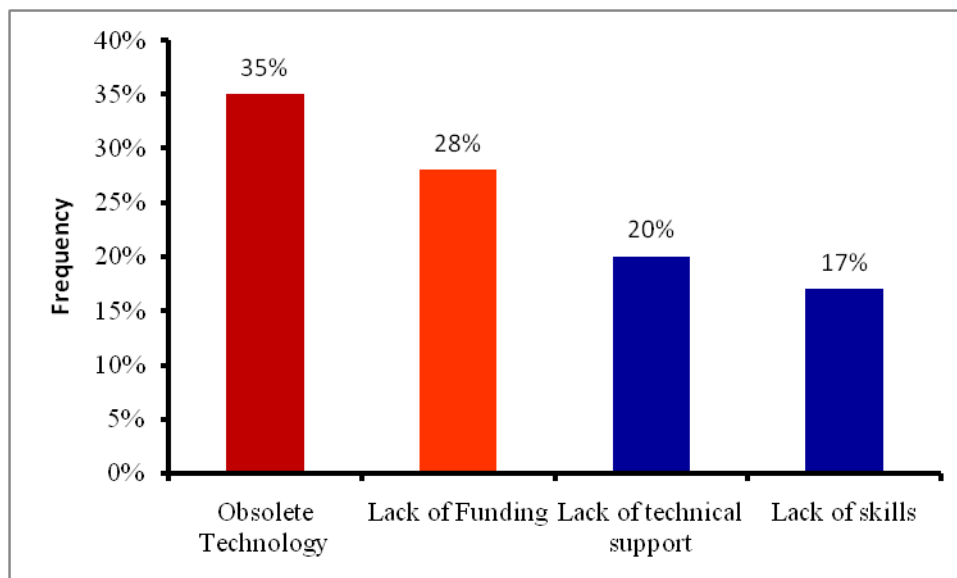


Figure 39: Hindrances to new product development in the EIS of Zimbabwe

The hindrances to new product development are presented in *Figure 39* above.

Obsolete technology: 35% of the respondents cited obsolete technology as a hindrance to new product development. Manual technology is used by 52% of the population (*Figure 40 below*) and this poses a challenge for new product development.

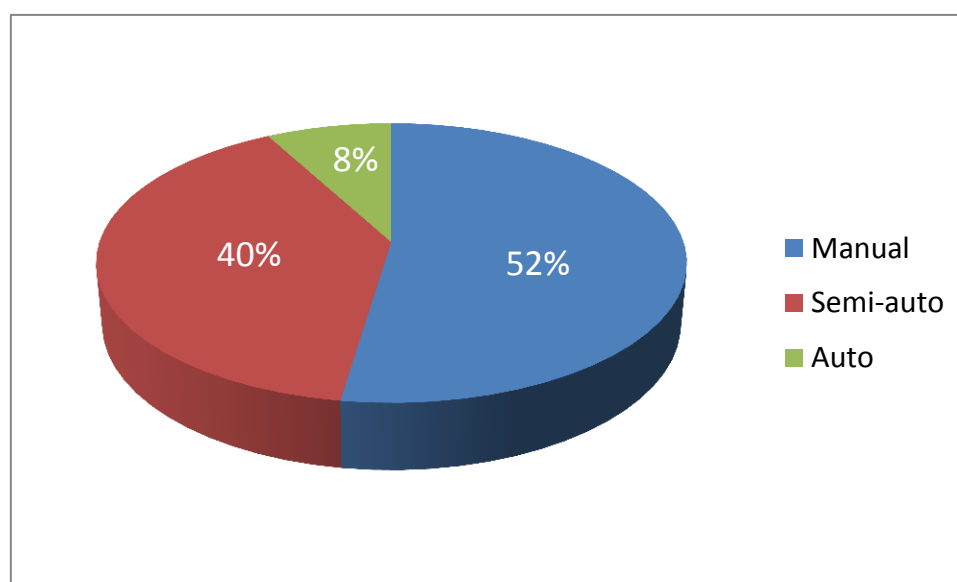


Figure 40: Transformation technologies in the EIS of Zimbabwe

Lack of technical support: An unavailability of adequate and relevant technical support was cited as a factor contributing to lack of new product development by 20% of the respondents. According to 40% of the respondents, local research and development is not relevant to the industry.

Lack of skills: The lack of skills can be attributed to the weak collaboration between the sector and research and development and academia.

2.7.8 Growth potential of sector in terms of sales revenue

There was a continuing decline in mean annual sales volumes per firm from about USD1.4Million in 2012 to just under USD1Million in 2014 (*over 30% decline in turnover*) as shown in *Figure 41 below*. Assuming 400 firms in the value chain, and a mean annual sales value of USD1Million per firm, it implies that the estimate size of the engineering iron and steel SMEs sector of Zimbabwe by sales revenue is currently at USD400Million. Based on the 2014 mean capacity utilisation of 38% (based on 1 shift per day), the growth potential of the sector by sales revenue is about USD1Billion assuming 100% capacity utilisation. By further assuming full utilisation of a 3 day shift, with the adjusted capacity utilisation of 13%, the potential growth of the sector increases to USD3Billion. There is therefore potential to grow the revenues of the engineering iron and steel SMEs sector from USD400Million to USD3Billion (750% growth).

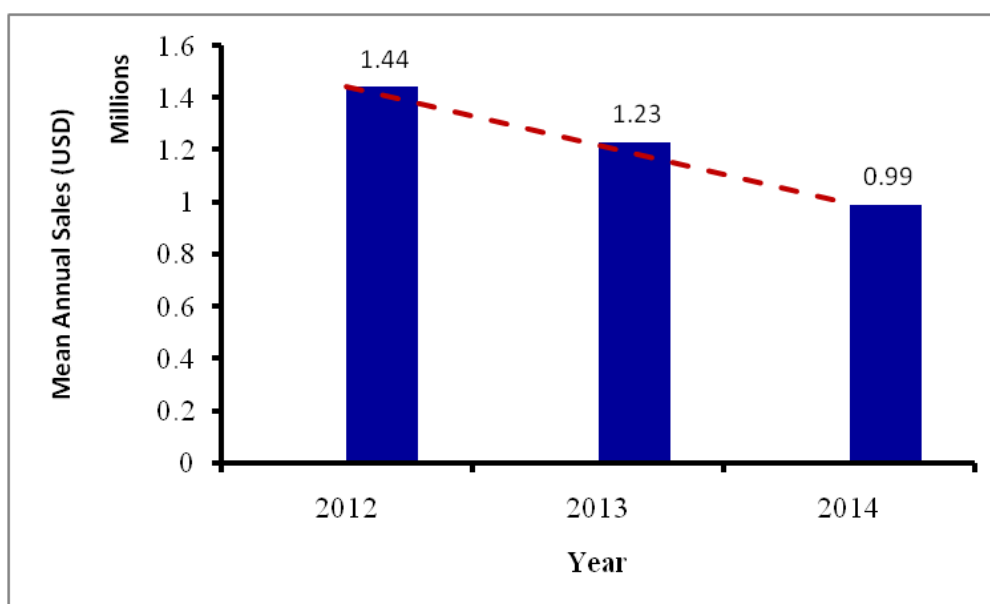


Figure 41: Mean annual sales in the EIS of Zimbabwe

2.7.8.1 Fiscal Income

Assuming a PAYE of the sector of 2.2% of revenue, net VAT of 5% and average profit margins of 10% for the sector (*ZEPARU Engineering and Metals Diagnostic Report, 2014*), the potential fiscal income from taxes (corporate, VAT and PAYE) is estimated at USD39Million. At full capacity (USD 3Billion), the sector has a potential of bringing over USD290million net income to the fiscus.

2.7.8.2 Gross Domestic Product and Value Added

The average Gross Domestic Product (GDP) for the engineering, iron and steel sector was estimated at USD306Million/year for the period 2009 to 2011, whilst the Intermediate Consumption (IC) and the Value Added (VA) were estimated at USD142 and USD164Million respectively (*ZEPARU Report, 2014*). The engineering iron and steel constituted about 2% of the national GDP (*based on the average total annual GDP of about USD13Billion and VA of about USD1.4Billion*) and about 12% of the average total national Value Added

(www.data.worldbank.org/indicator). Although the data collected from the survey could not accurately determine the current GDP and VA from the sector, an indicative estimate could be made. Based on the average annual sales of USD488Million/year for the period 2012 – 2014 (*Figure 38*), percent imports of 54.5% (*Figure 13*) by value and a VA of 54% (*Zeparu Report, 2014*), the average GDP estimate for the sector for the period 2012-2014 is less than USD222Million/ year. The average VA is therefore less than USD119Million/year for the EIS SMEs sector. Thus the VA of the EIS constituted less than 8.5% of the GDP. The resuscitation of iron and steel production in Zimbabwe has the potential to at least double the GDP, create employment downstream and increase the profit margins for the sector.

2.8 Value Chain Governance and linkages

2.8.1 Cluster Organisation in the engineering iron and steel sector

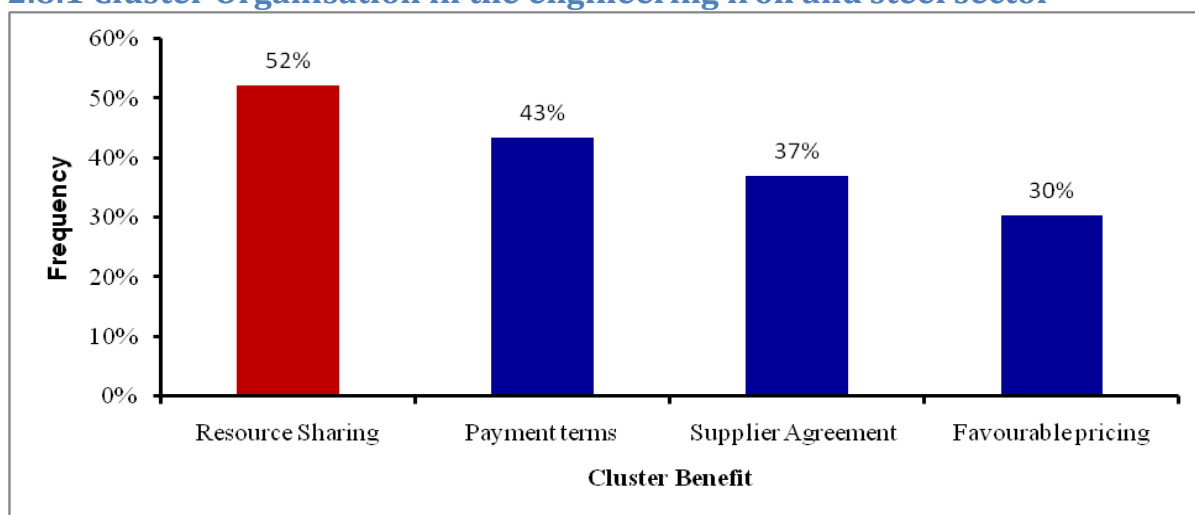


Figure 42: Value chain linkages in the EIS of Zimbabwe

Figure 42 above shows that firms in the same locality do not benefit a lot from each other as there are no formal clusters. This is shown by less than 50% respondents saying they enjoy favourable pricing, supplier agreements and payment terms from firms in the same locality. There are therefore opportunities to create sustainable clusters to improve the competitiveness of the sector as a whole. An interesting example is that of one firm that imported one of its major raw materials from China, whilst less than 2km away, a local firm manufactured the same raw material that could easily feed into their processes.

2.8.2 Location of firm as a competitive edge

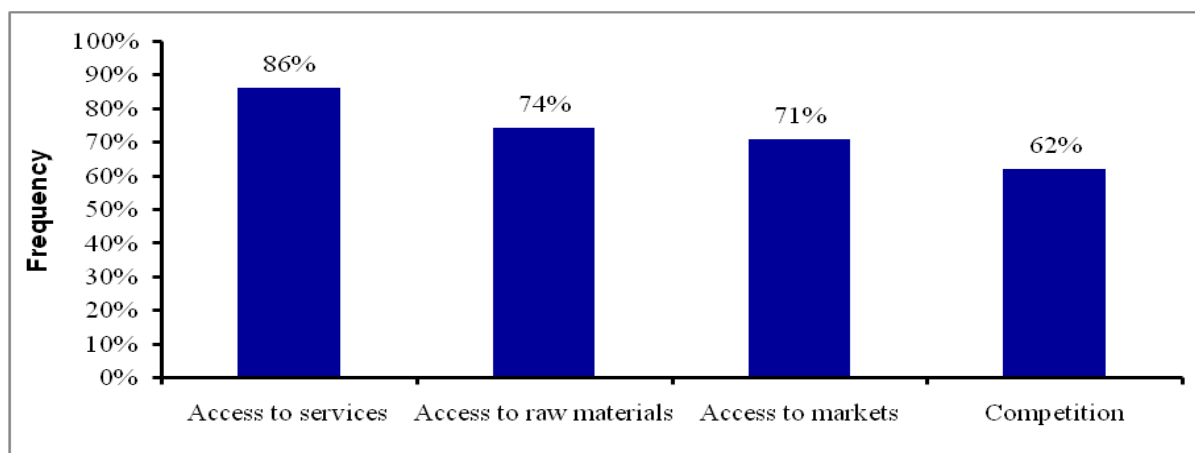


Figure 43: Location of firm as a competitive advantage

A significant number of respondents said the location of their firms were generally good as far as access to their markets, raw materials, services and competition were concerned as shown in *Figure 43* above. The major problem was however the absence of formal clusters leading to adjacent firms not complementing each other despite the closeness.

2.8.3 Employment levels and potential

The statistical analysis of the number of employees in the engineering iron and steel SMEs sector gives an average of 30 employees per firm as presented in *Figure 44* below.

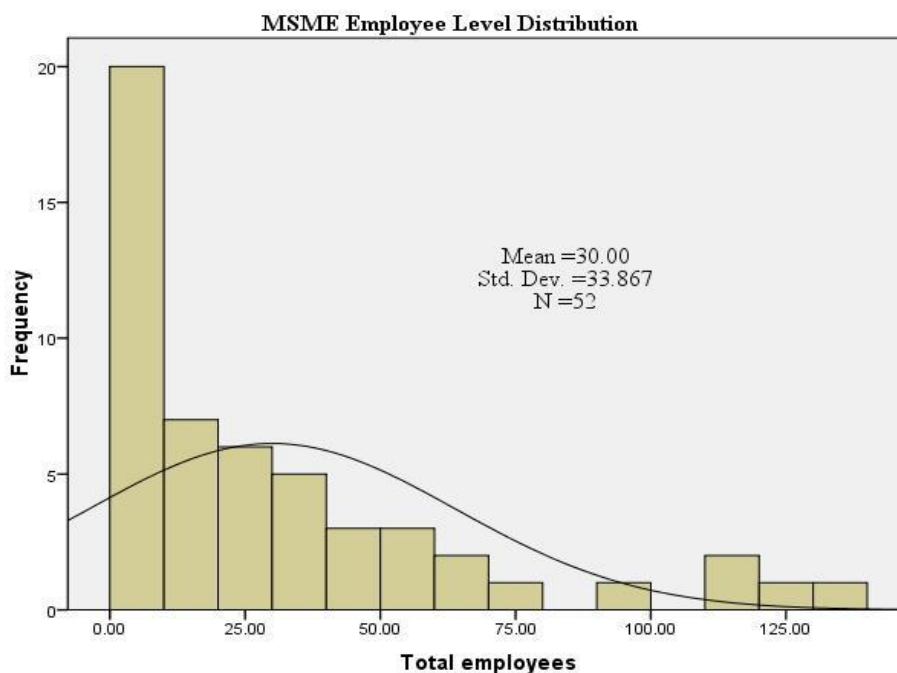


Figure 44: Employment level distribution in the sector

Assuming 400 actors in this EIS sector, then it implies that the current employment levels by the sector are estimated at 12,000 personnel. Based on the one day shift capacity utilisation of 38%, it implies an employment potential of over 30,000 personnel at full capacity utilisation. Furthermore, by using the adjusted capacity utilisation of 13% for a 3day shift, the employment potential of the SMEs sector increases to over 90,000 personnel. There is therefore potential to increase employment levels from 12000 to 90000 (750% increase) if the firms operate at full capacity utilisation.

2.8.3.1 Women participation in the value chain

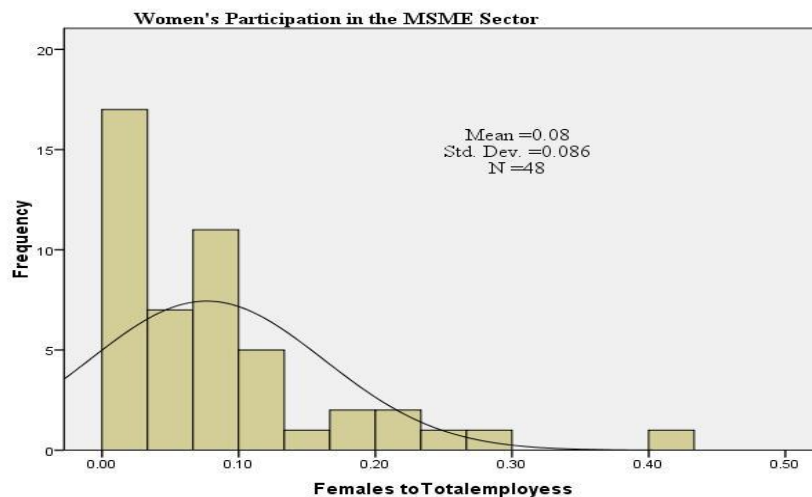


Figure 45: Women participation in the EIS of Zimbabwe

The participation of women is only 8% of the total employment as presented in *Figure 45* above. Thus women are marginally involved in the activities of the sector.

2.9 Sustainable production and energy use

2.9.1 Sources of energy

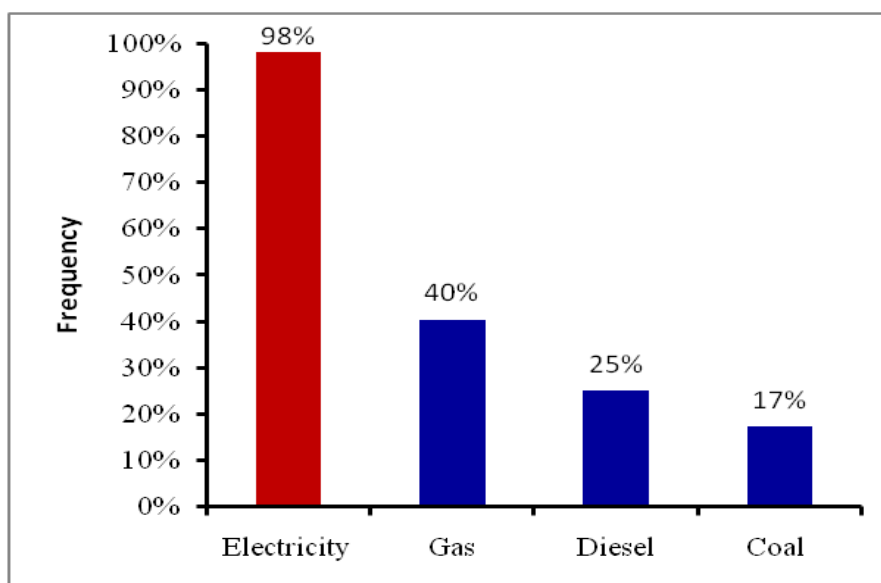


Figure 46: Sources of Energy in the EIS of Zimbabwe

Electricity is the main source of energy for most establishments (*Figure 46* above). The availability of electricity was a concern for a significant number of players whilst the cost of electricity was cited as a challenge by firms in the foundry sub-sector. Oxy acetylene gas and Liquefied Petroleum Gas (LPG) is also widely used by the actors in the engineering and steel industry. For a majority of players in the micro-sector the availability of both electricity infrastructure and hence access to electricity was a major issue. As a result some micro-firms subcontracted most jobs requiring electricity or used unsafe and illegal ways of connecting electricity to their operations.

2.9.1.1 Energy consumption monitoring

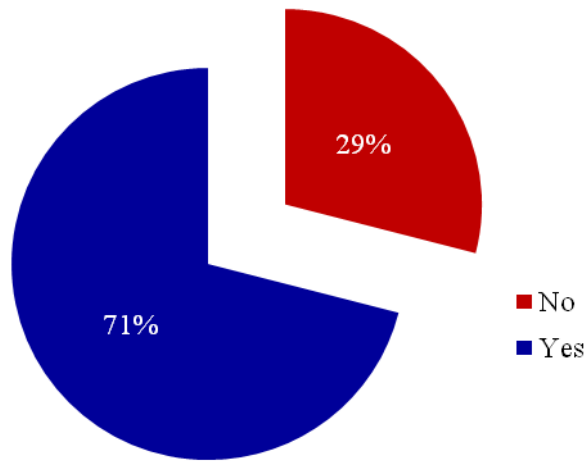


Figure 47: Energy consumption monitoring in the EIS of Zimbabwe

Figure 47 above shows that the majority of firms in the engineering iron and steel sector have systems to monitor energy consumption as 71% of the respondents stated so. The 29% who do not monitor energy consumption are mainly the micro-scale firms in the industry.

2.9.2 Sources of water for the sector

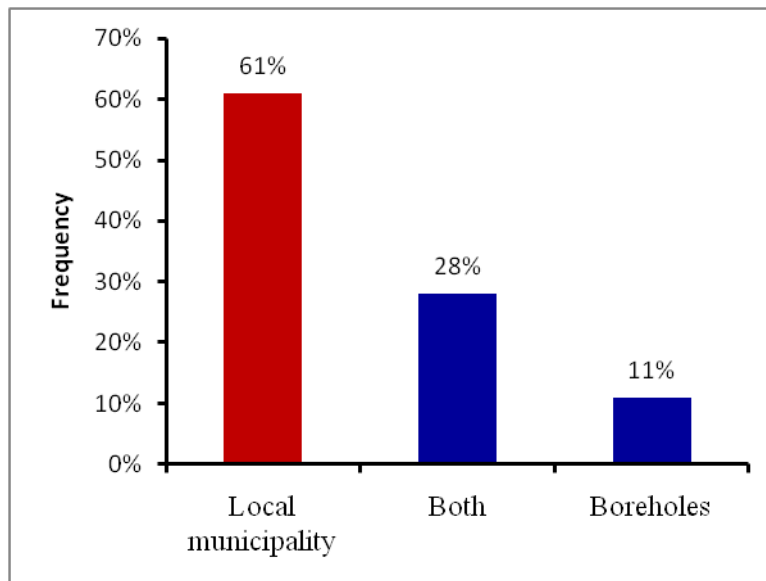


Figure 48: Sources of water in the EIS of Zimbabwe

According to the respondents, 61% of the firms get their water solely from the local municipality, whilst 28% use both municipalities and own boreholes (Figure 48 below). About 11% of the firms relied solely from their own boreholes. Generally, the availability of water was not a major issue for the players except for those in the foundry sub-sector who bemoaned the quality and cost of the water.

2.9.3 Compliance to Environmental Management Systems

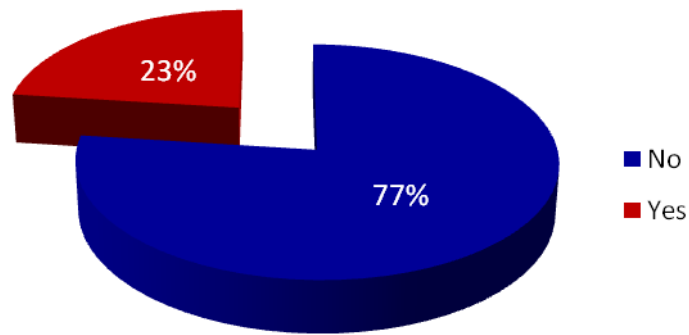


Figure 49: Environmental Management Systems Certification

A majority of firms (77%) was not certified as far as quality and environmental management systems were concerned (Figure 49 above). Compliance to such systems which improve business processes may enhance competitiveness of the sector. However, respondents cited the cost of compliance to be the major hindrance to certification. Compliance with and certification to internationally recognised standards is essential if export competitiveness is to be achieved by the sector.

2.10 Financial status of the engineering iron and steel value chain

2.10.1 Sources of finance

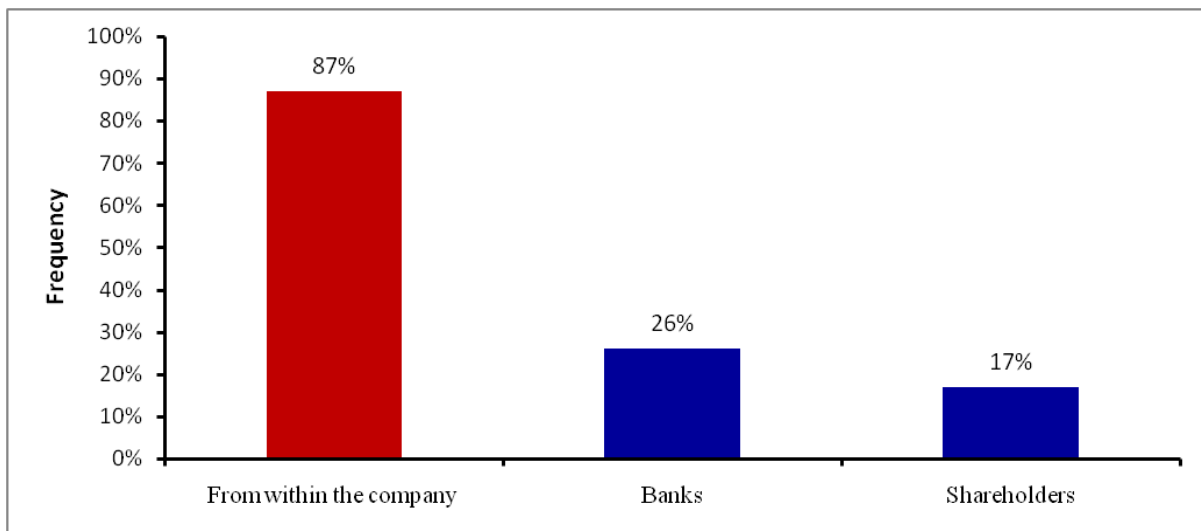


Figure 50: Sources of finance for the EIS of Zimbabwe

Figure 50 above shows that in the last fiscal year, 87% of the respondents used money generated from operations to spur the growth of their businesses. About 26% had access to bank facilities, whilst 17% used shareholders money. As shown, a limited number of firms borrowed money from the bank. There were several factors cited by respondents, namely high interest rates and high collateral amongst others.

2.10.2 Access to finance

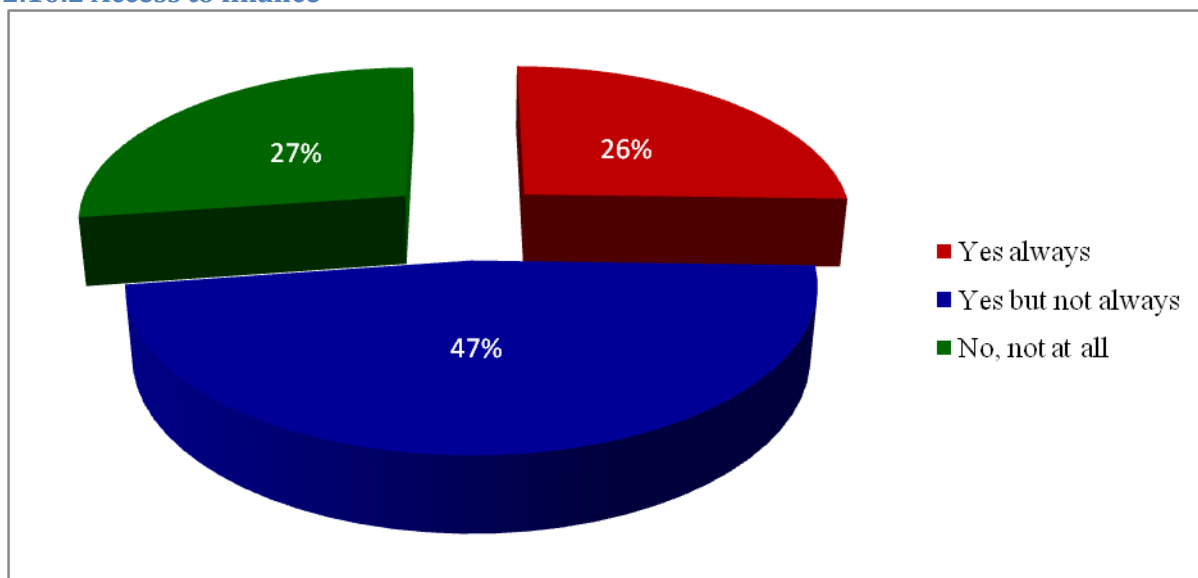


Figure 51: Access to finance for the EIS of Zimbabwe

Despite the fact that a significant number of respondents have access to bank finance (Figure 51 above), a few utilise the bank as a source of finance due to several factors as presented in Figure 52 below.

2.10.3 Hindrances to accessing funding

The major hindrances cited by respondents were high interest rates (75%), high collateral requirements (68%) and complex application procedures (57%) as presented in Figure 52 below. The average interest rates on borrowed funds stood at 18%, with a common tenure of six months. The cost of finance therefore affected competitiveness considering that regionally and internationally, the interest rates were usually below about 10% and below whilst the repayment period was longer.

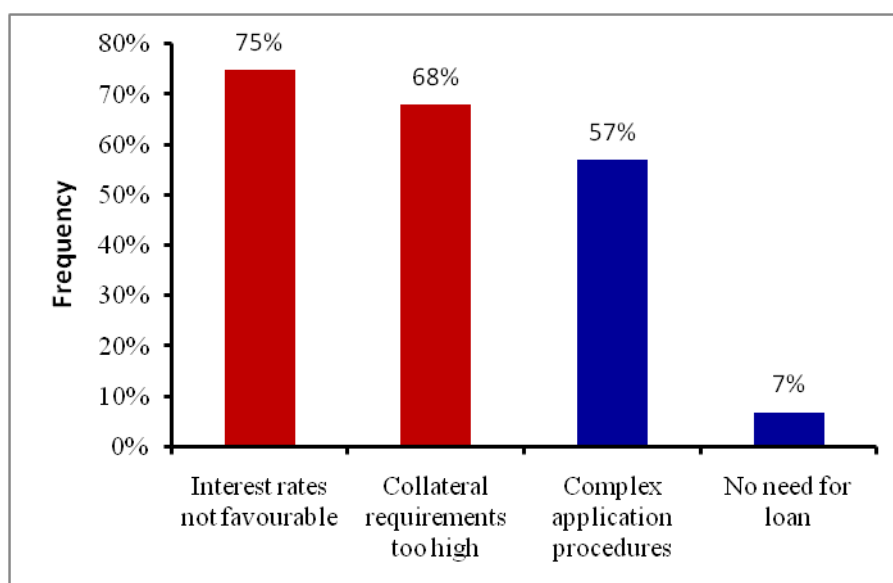


Figure 52: Hindrances to accessing funding/finance

2.10.4 Facilities funded

Working capital was widely seen as the preferred banking solution (Figure 53 below) for most providers with payment periods of between 1-12 months.

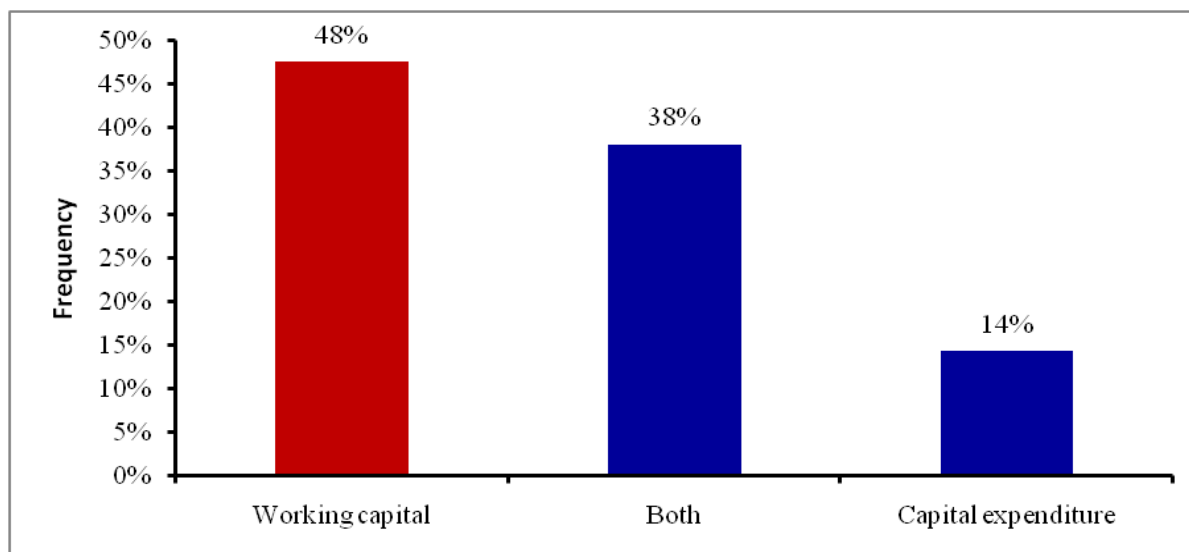


Figure 53: Funded facilities in the EIS of Zimbabwe

Considering that one of the major drawbacks to growth of products and markets was lack of financing mechanisms, availing long term cheap funding can enhance competitiveness and growth of the sector. The current lending terms were not favourable and funding CAPEX from resources within the company was not adequate for investment in new technologies as well as new product development.

2.10.5 Effect of access to finance on current operations

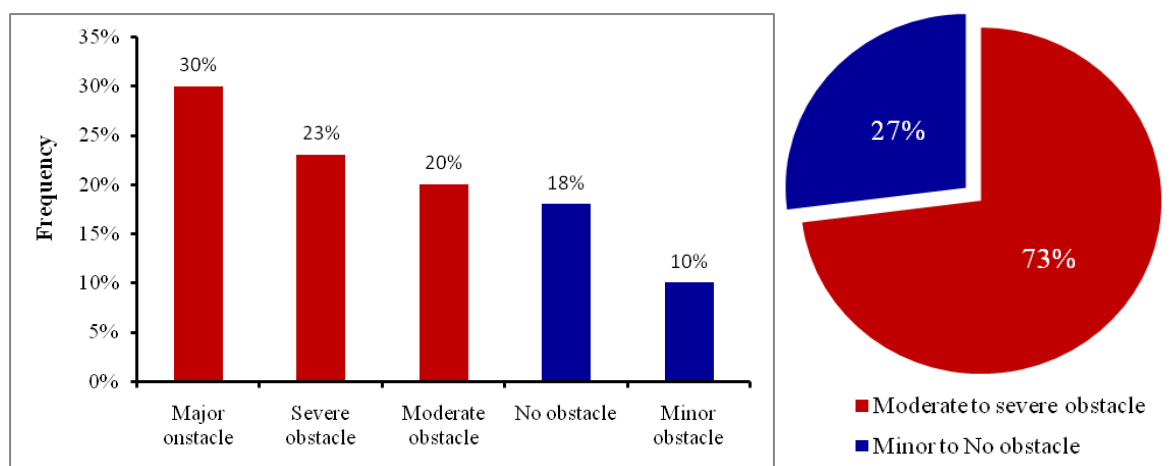


Figure 54: Impact of lack of access to finance on current operations

The significance of the need for funding is further emphasised by 73% (Figure 54 above) of the respondents who stated that access to finance had a significant impact on their current operations.

2.10.6 Financial management in the sector

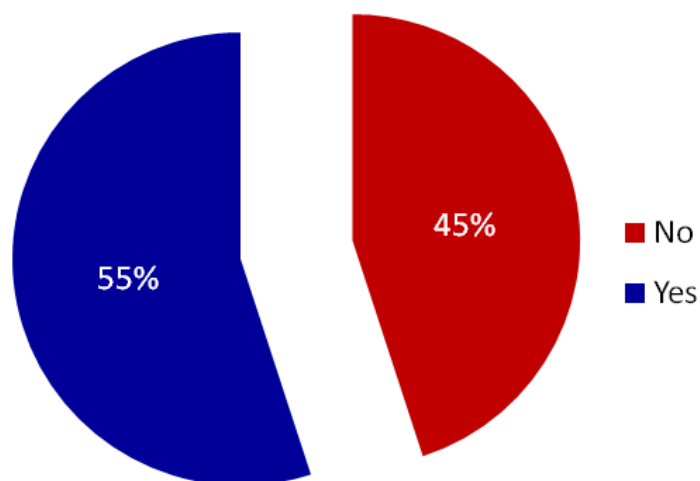


Figure 55: Audited Financial reports in the EIS sector of Zimbabwe

Although a slight majority of firms in the sector had their financial reports audited (*Figure 55 above*), a significant number did not carry out audits. Those who did not have audited financial reports included the micro players, sole and some small scale players. It was observed that all companies with shareholding structures had their financial reports audited.

2.10.7 Financial requirements

2.10.7.1 Financial Requirements by subsector

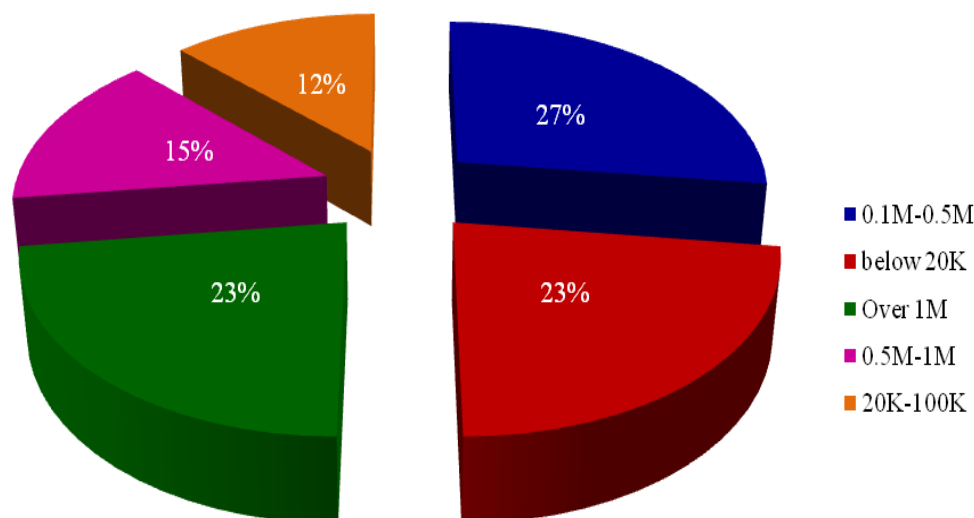


Figure 56: Annual financial requirements of the EIS sector of Zimbabwe

About 27% of the players required between 0.1M (USD) – 0.5M (USD), followed by micro-players (23%) requiring below 20K(USD) and some medium enterprises requiring over 1M(USD) as presented in *Figure 56* above. About 72% of the micro players in this study had annual financial requirements of less than \$20000. The small to medium entities had varying amounts depending on nature of operations, workforce size and market dynamics.

2.10.7.2 Mean annual financial requirements for the sector

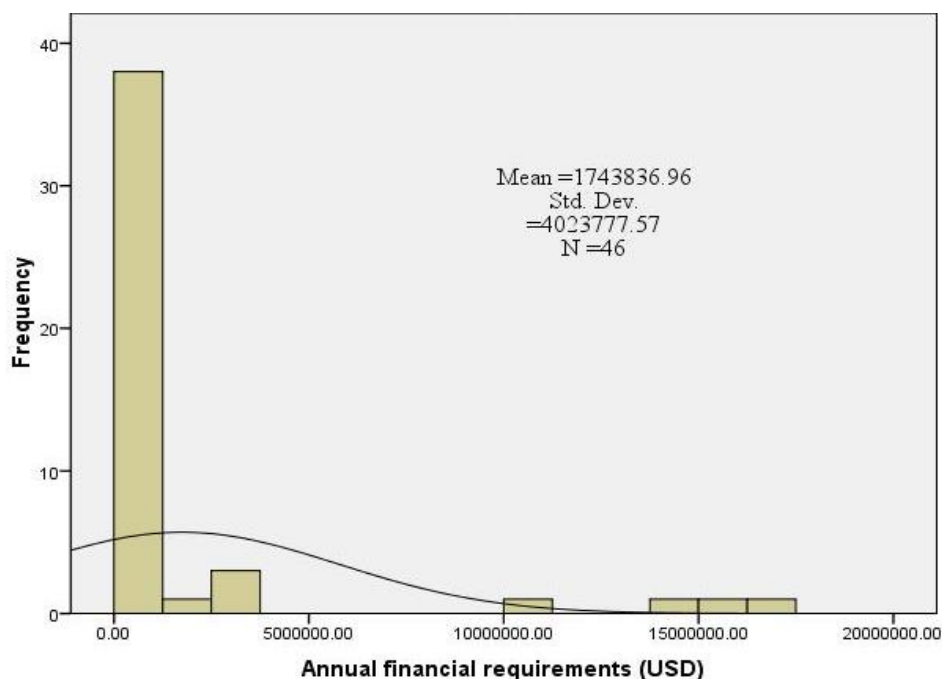


Figure 57: Mean Annual Financial requirements of the EIS sector of Zimbabwe

The mean annual financial requirement for the sector was USD1.7Million per firm (*Figure 57 above*). Assuming 400 firms in the sector, about USD680Million injection of working capital is required for smooth operation. Based on the adjusted capacity utilisation for 2014 of 13%, the annual requirements assuming maximum utilisation of the 3day shift becomes USD2Billion. However, the annual financial requirement could be less considering that a significant number of firms funded their own operations from within the company and through the shareholders.

2.11 Business and Socio-Economic Context

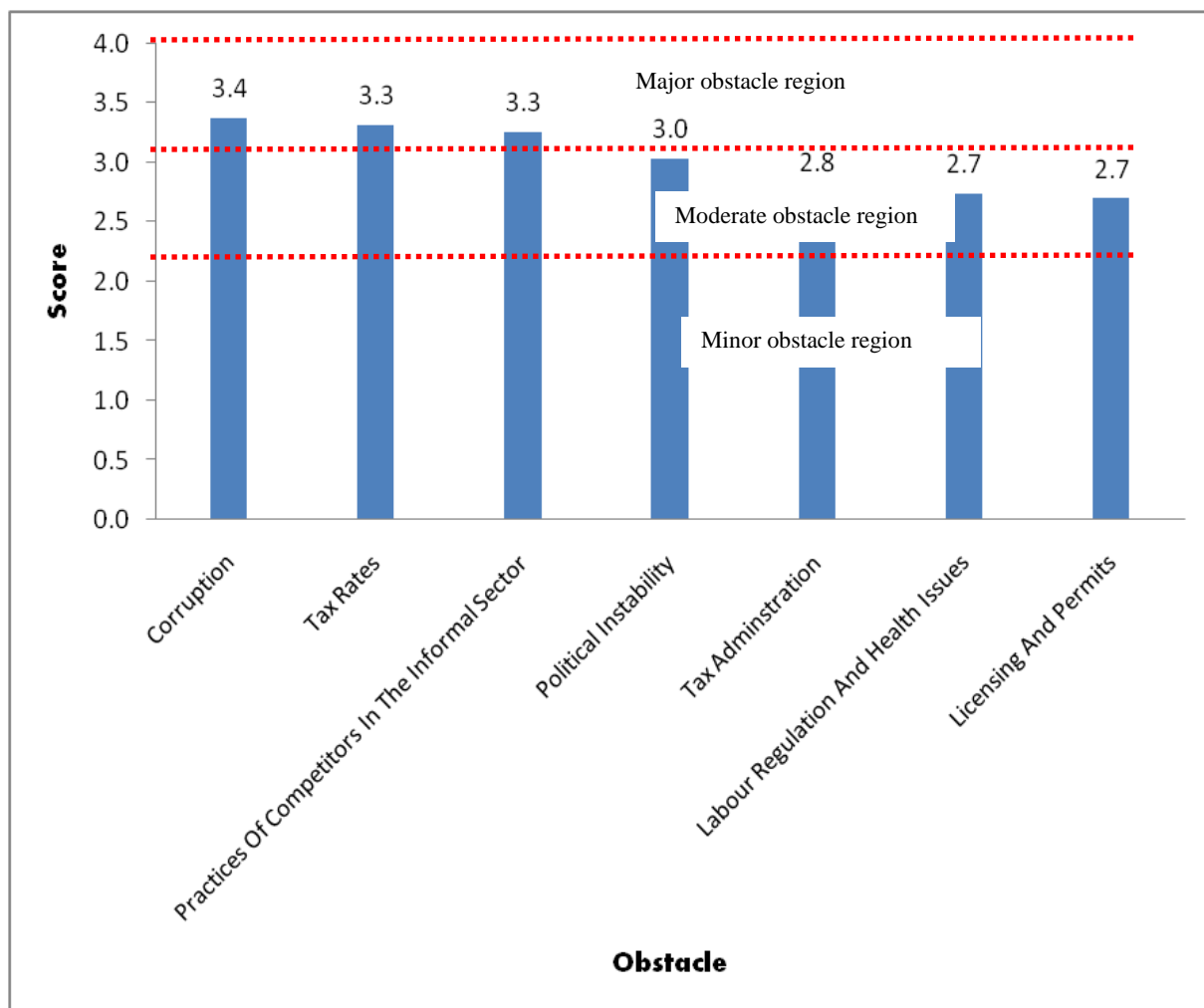


Figure 58: Impact of the regulatory environment on the EIS sector of Zimbabwe

The average score presented in *Figure 58* above showed corruption, tax rates and practices of competitors in the informal sector as major obstacles to the current operations of establishments. The combined effect of tax rates and their administration was also felt by micro to small scale players as pressure is intensifying for them to contribute to the fiscus. Practices of competitors in the informal sectors proved to be strong as there is a strong skills base that was once formally employed. These artisans or small businesses are setting up shop in convenient places; they are flexible and overall cheaper and hence have proved to be an attractive option to the cost conscious customers. Some informants claimed that micro to small business enterprises do not have corporate government structures as such they do not follow a code of practice that established companies abide by and hence creating an unfair operating environment.

2.11.1 Tax rates and administration as obstacles to current business operations

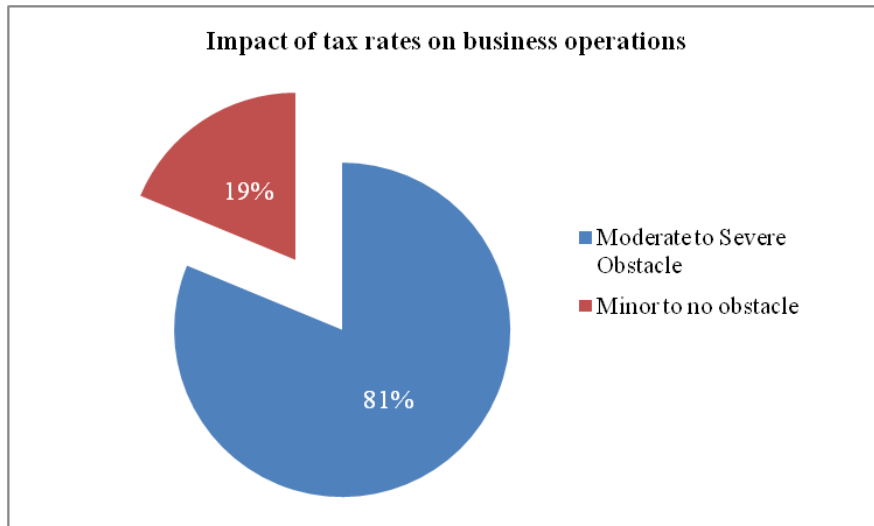


Figure 59: Impact of the tax rates on the EIS sector of Zimbabwe

About 81% of the respondents perceived tax rates to be higher than the regional and international averages and hence affecting the competitiveness of the sector (Figure 59 above).

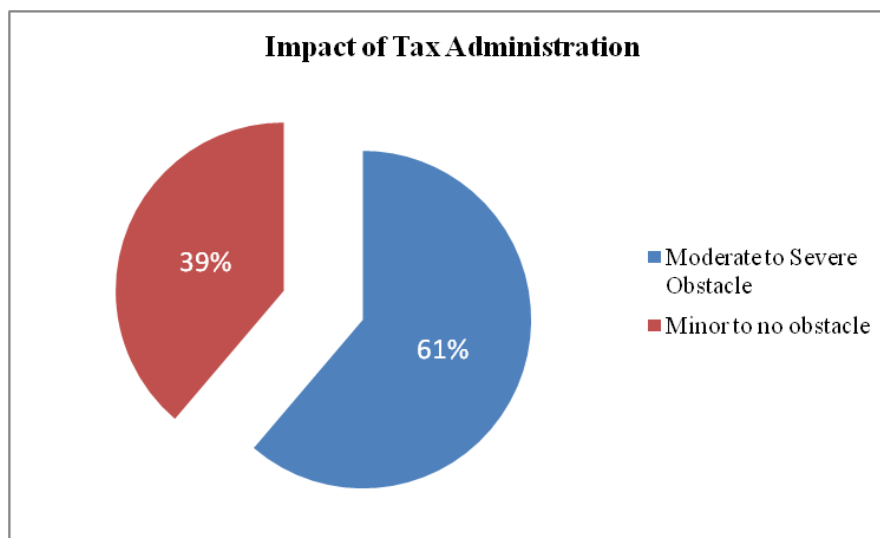


Figure 60: Impact of the tax administration on the EIS sector of Zimbabwe

Tax administration was also perceived to be a significant obstacle by 61% of the respondents (Figure 60 above). They cited the punitive measures associated with returns and VAT issues as impeding operations.

2.11.2 Corruption as an obstacle to current business operations

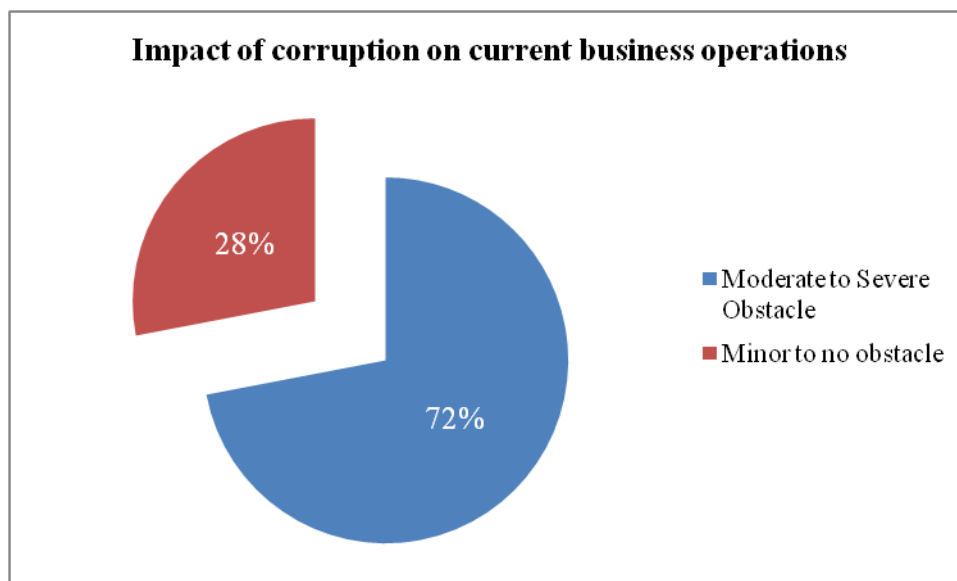


Figure 61: Impact of corruption on the current business operations

A significant majority (72%) of respondents cited corruption as negatively affecting their business operations (Figure 61 above). They said corruption presented an uneven playing field for their operations. For example cheap and low quality imports which are supposed to incur duty are smuggled and flooded into the local market where they compete at very low prices. There are also firms and traders who easily evade taxes and other regulatory and statutory requirements making the playing field very uneven.

2.11.3 Practices of competitors in the informal sector as an obstacle to current operations

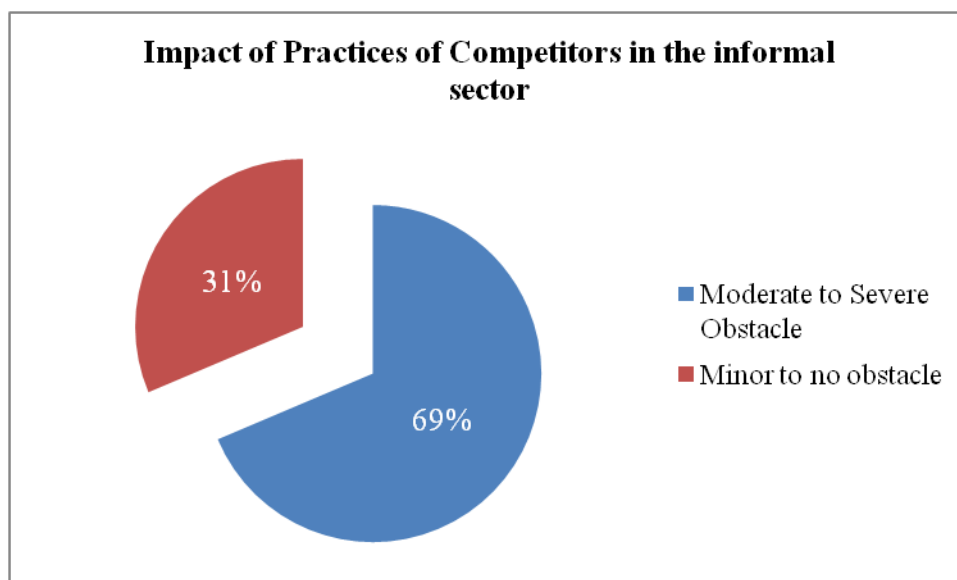


Figure 62: Impact of practices of competitors in the informal sector on the current business operations

Practices of players in the informal sector also affected the operations of formal businesses as unethical practices led to business loss for the registered companies as well as an unfair business environment for formal operations.

2.11.4 Licensing and permits as an obstacle to current business operations

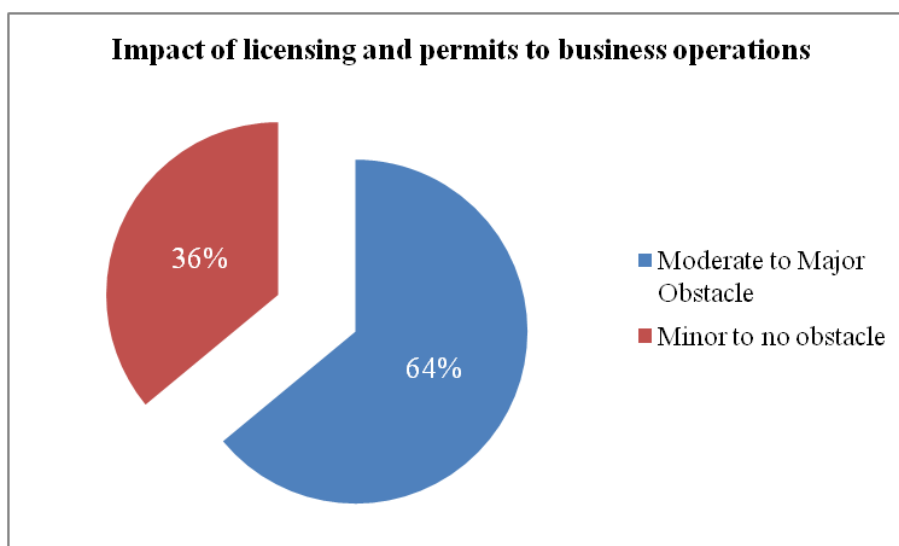


Figure 63: Impact of licensing and permits on the current business operations

About 64% of the responded cited the cost of compliances as too huge for their operations (Figure 63 above) and called for the rationalisation and synchronisation of these regulatory activities.

2.11.5 Labour and Health issues as obstacles to current business operations

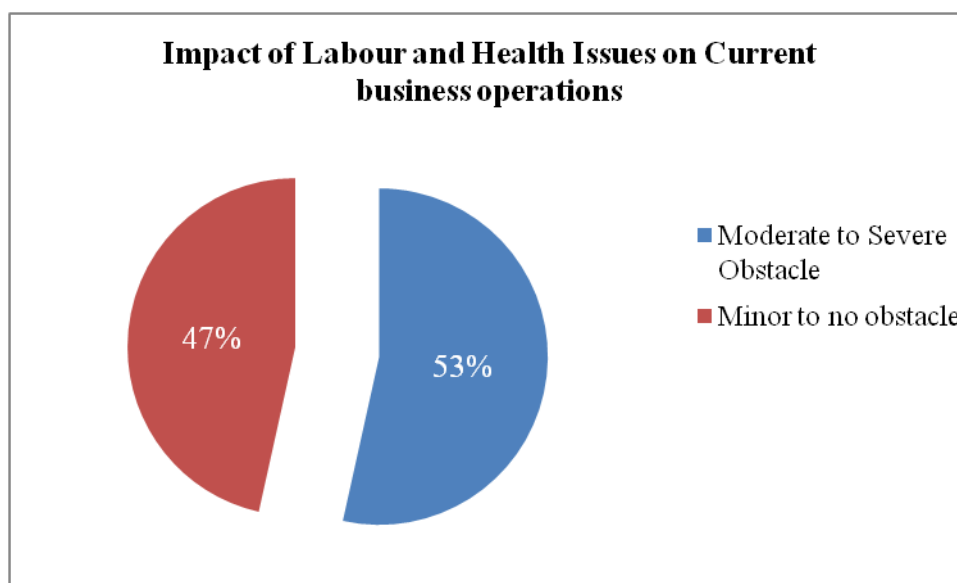


Figure 64: Impact of labour and health issues on the current business operations

A marginal majority of respondents cited the current labour laws as rigid and not productivity friendly. There was therefore need to align the labour laws to productivity to enhance competitiveness of the sector.

2.12 Sector Specific Issues

2.12.1 Foundries

2.12.1.1 Cost of Scrap as an essential raw materials for foundries

The firms said that the exportation of raw scrap pushed the local prices of scrap up, and in turn pushing the prices of final product up. There was therefore need to implement policies that ensure that the foundry sub-sector gets local scrap at competitive prices. This precious raw material exportation must be regulated in view of the absence of ZISCO as a raw material supplier.

2.12.1.2 Cost of electricity

The foundries are energy intensive and they cited the cost of electricity as being higher than the regional equivalent and hence threatening export competitiveness of their final product.

2.12.1.3 Capacity to supply the local market

Some key informant interviews pointed out that activities in the mining sector created, for example a demand of special grinding media of about 0.5 million tonnes per month. However, this demand is being met from imports since the local foundry does not have the capacity to supply the volumes. There is therefore an opportunity for the foundry if well capacitated to regain this market share. There is also significant mining activity in the region, which is a key market with the potential of raising the capacity utilisation of the foundry industry.

2.12.2 Micro Enterprises

2.12.2.1 Poor Infrastructure

Micro-firms in Harare faced serious space, electricity and water challenges. The average space for each enterprise in Mbare was 6square metres (3mx2m) thus restricting the range of products that could be made in that little space. There was no electricity in most of the cubicles and hence most jobs and processes would be subcontracted, thus pushing the price of the final product up.

2.12.2.2 Antiquated machinery

The machinery used by most of the micro-firms is manual and difficult to operate, thus limiting productivity, quality as well as new product development.

2.12.2.3 Product standardisation and certification

The manufactured products were not standardised and the quality was not consistent despite the fact that innovative products were made.

2.12.2.4 Lack of marketing support

Most of the micro-firms stated that they did not know how to market their products and hence their market share was limited.

2.12.2.5 Challenges with formalisation

A significant number of micro-firms were ignorant of regulatory and statutory requirements of running their operations. About 37% of the firms were not registered according to the results of the survey. This fact made it difficult for them to access lines of credit and crucial markets.

2.12.2.6 Lack of financing mechanisms

About 83% of micro-enterprises cited lack of financing mechanisms as a major obstacle to the growth of products and markets. The average annual financial requirement for a micro-enterprise was USD45000.00

2.13 Location Specific Issues

2.13.1 Industries in Bulawayo

2.13.1.1 High cost of major inputs and supplies

A significant number of firms in Bulawayo were concerned about the cost of major inputs and supplies which were coming from Harare. For examples long and flat steels are imported from South Africa and other countries to distributors and retailers in Harare. The firms in Bulawayo would in turn purchase these essential inputs in Harare and transport them to Bulawayo for manufacturing. The cost of the raw materials thus goes up significantly and hence driving the price of the final product up.

2.13.1.2 Centralisation of services to Harare

Most of the critical services and statutory requirements were centralised to Harare, making it costly, inconvenient and also resulting in long lead times to service delivery. Some of the firms in Bulawayo refer to Harare as “*Bambazonke*”, implying that Harare holds everything.

2.13.2 Industries in Midlands

2.13.1.1 Resuscitation of Iron ore and Steel production cluster

Most of the firms in Redcliff, Kwekwe and Gweru depended heavily on ZISCO Steel. These firms include Redcliff Engineering, Mech and Elect Projects, Haggie Wire and Rope, Lamcast Engineering, Lancashire Steel, Birch and Molloy, Olicken, Zimcast, ZimAlloys and Midlands Metals amongst others. The non-operation of ZISCO heavily impacted on the downstream industries with over 50% of the downstream firms closed and the rest operating at very low capacity utilisation.

2.13.3 Micro-enterprises outside Harare

2.13.3.1 High cost of raw materials

Micro-enterprises outside Harare had similar challenges of cost of raw materials as faced by Bulawayo. They reported that since the non-operation of ZISCO Steel, their major source of inputs and supplies was Harare where the cost of transport would push the price of their final product way higher than that of large scale distributors in their locality.

2.13.3.2 Challenges with formalisation

A significant number of micro-firms were ignorant of regulatory and statutory requirements of running their operations. This factor resulted in most of the firms losing a significant market share especially with NGOs, Government and developmental agencies as well as medium and large firms.

3 Conclusions and Recommendations

This part summarises the findings by aligning them to the objectives of the study and finding out whether the objectives have been met. It also outlines the recommendations aimed at addressing the challenges and weaknesses identified in the survey.

3.1 Conclusions

3.1.1 Existing Products and Markets

The survey concluded that the major products produced by the SMEs in the engineering iron and steel sector were traditional. They are as follows; construction steels (long and flat products), agricultural machinery and components, mining equipment, components and accessories as well as engineering services (*mainly repairs and maintenance*). The main customers were individual domestic consumers and small domestic firms and no foreign consumers. Therefore export competitiveness was extremely poor. The only and little exportation in the sector to low income countries in the SADC region showed that the sector could not compete in high income Africa and the developed world. The majority of SMEs in the sector did not also access major consumers such as large enterprises (*local and multinational*) and governmental institutions implying that no significant linkages and clusters existed in the sector.

Considering that during the pre-economic crisis era, the sector had a significant market share in the SADC region and the EU, it has significantly lost both the export (~100% loss) and local (~60% loss) market share and strategies to regain this market share and develop competitive new products. The worst affected subsectors as far as market share loss is concerned were the automotive, agricultural, construction, electrical machinery and mining equipment subsectors. The majority of automotive products were now imported from Japan, Singapore, India and South Africa, whilst agricultural machinery was being imported mainly from South Africa, China and South America. The majority of construction steels and mining components and equipment were coming from South Africa whilst electrical machinery and components were indirectly coming from China via South Africa. Thus South Africa remained the dominant competitor for the sector in both the local and regional market. The competitive advantages of South Africa included, i) high iron and steel production capacity (which exceeds the SADC requirements by 50%), ii) iron and steel primary production in the hence of the private sector (*improved efficiencies and quick response to business dynamics*), iii) strong value chain linkages at both local and international level iv) good export oriented policies and iv) Significant local demand from downstream industries like the automotive and mining sector.

3.1.2 Obstacles to growth of local products and markets

The declining sales revenues of about 29% from 2012 to 2014 was mainly attributable to stiff competition from foreign products on the local market, the lack of growth in local demand (*stagnation in agriculture, low capacity utilisation of the mining sector, etc*), lack of financing mechanisms and high cost of transport. The available funding for required working capital and CAPEX for enhancing competitiveness and developing new products was expensive at short repayment periods of 12 months or less, with average interest rates being greater than 18%. The cost of finance thus rendered the sector uncompetitive against major competitors with interest rates that were lower than 12%. The old and largely manual technologies used in the sector, despite being reliable and ease to use, were inferior to modern technologies used in high income countries to enhance competitiveness through improved productivity and quality, reduced labour and increased capacity for new product development. These new technologies enabled foreign products from developed countries to compete at very low prices compared to the high price locally produced products.

3.1.3 Opportunities for new products and markets

The opportunities identified include i) mining accessories and components, particularly mill balls for large mining companies and small scale mining equipment for small scale miners, ii) construction steel products for infrastructural and power projects (e.g. road construction, irrigation and power infrastructure and civil works), iii) alternative and renewable energy to mitigate power challenges, iv) resuscitation of the manufacturing sector which include new machinery, repairs and maintenance, installation and commissioning, v) modern agricultural equipment and technologies, vi) medical equipment, vii) automotive industry considering the increased number of automobiles, viii) Computer Aided Manufacturing and Automation, ix) new technologies like nanotechnology and advanced materials, x) regional export markets in the mining, construction, renewable energy and agricultural sectors, xi) project management and consultancy services to support the engineering, procurement, fabrication, installation and commissioning projects and xii) exportation of skilled labour for consultancy services to the SADC region and the continent. The engineering iron and steel sector must therefore address capacity issues in-order to tap into the opportunities provided by the ongoing national developmental projects in the power, road construction and mining sectors amongst others taking advantage of the ZimAsset economic blue print, which embraces the cluster and special economic zones concepts.

3.1.4 Major constraints and sector competitiveness

Several constraints must be overcome to regain competitiveness. The identified constraints, which resulted in very low capacity utilisation of 13% in 2014 included low local demand, drawback from the current economic environment, competition from imports, power shortages, weak collaboration between research and development institutes and little relevance of local research and development to industry requirements. The drawbacks from the current economic environment were several, driven by high cost of raw materials, labour, utility charges, cost of regulatory and statutory compliance, corruption as well as practices of competitors in the informal sector. The direct and indirect importation of raw materials mainly from South Africa in the absence of significant local production of iron and steel has helped increase the price of finished goods way above competing imports. The cost of primary steel for the value chain is above 2 times more expensive than the average world steel prices. The re-establishment of iron and steel production in the country is a pre-requisite for enhancing the competitiveness of the engineering, iron and steel value chain, since it guarantees competitive prices of steel to downstream actors.

New product development, which is highly needed in the dynamic and fast advancing global village, is critical to ensure sustainable existence of the engineering iron and steel sector. Obsolete technology, lack of funding, lack of technical support and lack of skills have all hampered new product development. New product development was also hindered significantly by the weak collaboration amongst the sector, research and development and academia as well as little relevance of local research and development to sectoral needs.

It was against this background that the engineering iron and steel SMEs sector's level of competitiveness was rated very low. This is summed up by the extremely low (13%) and declining capacity utilisation, low (USD400Million) and declining sales revenues by over 20% over a four year period, low employment levels (12000), extremely low export competitiveness with zero exports to high income markets and very low export sales volumes to low income markets, insignificant iron and steel primary production capacity for downstream consumers, lack of new product development, weak value chain linkages and absence of clusters, weak links amongst research and development, academia and sector and inferior and uncompetitive technologies on the global environment.

3.1.5 Sector potential and value chain enablers

The sector has great potential for radical improvement if appropriate strategies are formulated and implemented. Analysis showed that the sector revenue levels can increase by 750% from USD 400 Million to USD 3 Billion dollars if capacity utilisation is restored to 100%. Accordingly, the net income to the fiscus can improve from about USD 39 million to USD 290 million, whilst the employment levels by the sector can improve from the current 12 000 to over 90 000. The sector can also regain the lost regional market share, penetrate new markets and hence increase the level of competitiveness and fiscal contributions. The sector has also the potential to resuscitate iron and steel primary production to adequately supply the local market requirements and export the excess competitively to regional and international markets. The essential prerequisites to attaining this desired levels of competitiveness are i) marketing strategy, ii) technical capacity, cost competitiveness and financing mechanisms.

The marketing strategy should begin with a marketing survey and competitor analysis on the local, regional, continental and international market. The output of the survey must produce distinct products and services that have the most potential for competitiveness. The products and services shall be prioritised into short term, medium and long term depending on the product/service attractiveness by using a developed criteria. The technical capacity requirements are hence derived from market needs, the funding requirements and return on investment, sustainability issues, business support as well as the enabling environment which ensure cost competitiveness. Strategic value chain linkages and inclusive clusters shall then be derived from the market needs. Comprehensively articulated export oriented policies, policies that stimulate local demand growth and enhance cost competitiveness of the local environment to produce competitive products shall be required.

The value chain enablers will include attractive and inclusive investment laws that attract both foreign and local investors, reduced cost of regulatory and statutory compliance, export incentives, local value chains globally linked to global clusters for access to large markets, restructured and sustainable power and transport infrastructural services to industry and regulation of imports through implementation of antidumping laws.

3.2 Recommendations

The recommendations are mainly centred on the key issues revealed by the survey namely; i) competition from imports that have almost totally closed the local manufacturing firms, ii) local and declining local demand, iii) lack of growth of markets and exports iv) low export competitiveness, v) high cost of doing business due to high cost of materials due to importation of basic steels since the ceasing of operations by ZISCO, high cost of financing at 18% interest rate and above, high cost of compliance (high tax rates, EMA fees, etc) and inferior technologies with low productivity, vi) lack of financing mechanisms and vii) lack of new product development and innovation.

Thus the recommendations aim at improving the competitiveness of the local engineering iron and steel sector through addressing the identified constraints and tapping into identified opportunities. The expected outcomes after implementation of the recommendations include i) increased competitiveness through increased productivity and capacity to meet customer volumes, reduced prices, improved quality, reduced lead times to markets and quick response to market demand. In turn, the capacity utilisation is expected to increase from the current 13% to above 50% and ultimately to over 80%. In certain subsectors, it is proposed that 100% of local demand must be met from local production, implying that for certain firms, the capacity utilisation can be as high as 100%.

3.2.1 Competition from imports and improved export competitiveness

It was concluded that competition from imports came from several fronts namely i) high quality products produced by superior technologies (*purchase price was not a factor in this*

case), ii) low cost high quality products produced by superior technologies (*price was a factor, since local products are more expensive*), iii) innovative and new products substituting traditional products manufactured by local firms (these technologies are energy efficient, flexible and made of new materials), iv) rigid Bilateral Trade Agreements involving Buyer's Credit which makes it compulsory for the lending country to supply value added products to the local project being funded and v) low cost substandard products finding their way onto the local market due to the absence of an effective implementation method of antidumping laws as well as corruption.

The recommendations for improved competitiveness against imports are as follows;

3.2.1.1 Recapitalisation through investment in sustainable competitive technologies

An engineering iron and steel marketing institute/arm must be established to carry out a market analysis, establish the market for engineering iron and steel products, justify viable and strategic products, services and value chains for capitalisation, link local value chains to global value chains and continuously update the sector of local, regional and global market trends for continuous competitiveness. As a result strategic products and services must be identified; the value chains mapped from the markets down to the local value chains and the capacity and other requirements determined. Long term funding at internationally competitive rates must be sourced. The attractiveness of such investments lies in the win-win environment where the linked local and global value chains as well as the services industries mutually benefit. Technologies that can be invested into may include CAD/CAM which reduces the unit cost of production. Other unique technologies may be justified for producing unique low volume high cost products with high returns. It should be noted that Zimbabwe has to develop competitive local ICT and software products for sustainable technical support. Technology transfer is also a pre-requisite for sustainability since most of the new technologies are often too costly to maintain for the local firms and will often be abandoned as the firms resort to the traditional manufacturing methods as the cost of upgrading becomes high or the lead times to servicing become too long.

3.2.1.2 Assurance of internationally competitive quality products

Effective and sustainable quality management systems must be established for the identified strategic subsectors in the engineering iron and steel sector to enhance export competitiveness of the sector. The identified subsectors must be supported by the Standard Association of Zimbabwe to implement internationally recognised quality management systems as demanded by the targeted markets. The skills training needs for the quality needs at product, process, market and organisational level must be addressed with the help of the training institutions to ensure that at any time the skills supply meets the demand. Institutions like SIRDC can be handy in spearheading the implementation of Productivity Improvement Initiatives like Lean Manufacturing. Centres of Excellence in key skills and technologies affecting the quality can be established at selected vocational training centres, polytechnics and universities. One such critical centre could be a Welding Institute where personnel is trained to weld internationally certified pressure vessels, high pressure tanks and reactor vessels medical equipment and civil structures. The Engineering Council of Zimbabwe can be capacitated to implement regulatory control systems to ensure that ethical practice exist in execution of critical projects to sector competitiveness.

3.2.1.3 Innovative and new products

The local development of new and innovative products can be achieved through the establishment of policies that enhance strong linkages and collaboration amongst research and development, academia and the engineering iron and steel sector. Since funding is limited from government, rationalisation of research and development resources, establishment of commercialisation vehicles for innovations and encouraging participation of strategic subsectors in market related research and development can accelerate the local production of new and innovative products. Policies that enhance partnerships with international and multinational companies in research and development and technology

transfer will also enhance the capacity of the local sector's products to compete with imports at local, regional and international level.

3.2.1.4 Involvement of the Sector Representation in Bilateral, Regional and International Trade and Funding Agreements

Trade and Funding Agreements often come with hard bargaining. In almost every case, it is usual that the funding institution serves the interest of the nation, country or region it represents and hence expertise is needed for bargaining for a win-win deal. The Consultant proposes that EISAZ and ECZ establish a Bargaining Committee that ensures that the interests of the sector are protected in Trade and Funding Agreements that have huge impact to the sector. Such agreements include funding of major civil, infrastructural and power projects, railroad construction, major agricultural mechanisation projects, etc. Roll out programmes of new technologies should also be vetted to ensure their sustainability.

3.2.1.5 Imports regulation

In the same manner that ZIMRA classifies and determines customs duties on imported products, the Consultant proposes high import tariffs on all engineering, iron and steel products and services, which the local industry has sufficient production capacity. The import duty should however remain low for basic steels that are not produced by the local sector and yet needed critically by the value adding industries in the sector. ZIMRA must work closely with EISAZ, SAZ to ensure that all substandard imports suppliers are brought to book.

3.2.1.6 Export Incentives

Policies that enhance export competitiveness must be initiated, strengthened and implemented considering that the stiff competition imposed by imports. From a comprehensive market survey, inclusive export processing zones must be established. These zones must include partnerships and collaborations with multinational, international and regional firms with huge positive impact to the sector. These zones must enjoy special incentives like tax holidays in exchange for investment in beneficiation and value adding technologies, zero import duty on basic supplies, subsidies, waiver on the indigenisation laws, and flexible labour laws, etc.

3.2.2 Stimulation of local demand

The stimulation of local demand shall be mainly through the establishment of well-structured financing mechanisms for viable end-markets for local engineering, iron and steel products and services. These end-markets include small scale mining and minerals processing capitalisation, housing schemes, agriculture mechanisation for A1 and A2 farmers as well as other key sectors like the poultry industry, agro-processing and renewable energy technologies and capitalisation on manufacturing clusters in special economic zones as spelt out in ZimAsset blue print and the 10 point plan. Accordingly the Local Value Chain Maps for such end markets must be clearly defined. The participating actors in the value chain must also be carefully determined using a transparent criterion.

3.2.3 Reduction of Cost of Products and Services

The major cost drivers were raw materials, labour, utilities and transport. The recommendations thus focus on ways of reducing these utilities in-order to ultimately reduce the price of products and services to compete with imports.

3.2.3.1 Reduction of Cost of Raw Materials

The short term recommendation is to reduce or totally remove import duty on basic steel and imported raw materials for local beneficiating and value adding engineering, iron and steel firms. In the midterm, a national distribution centre for basic iron and steel may be established, whose shareholding can be in the hands downstream firms in the engineering iron and steel sector. The economies of scale, preferred clearance and special

transportation through the railway line can reduce the costs of the basic raw materials for downstream processes.

Also in the midterm, new investors in basic iron and steel production can be incentivised. Three major beneficiation processes exist in basic iron and steel production namely Blast Furnace Route (BFR), Electric Arc Furnace (EAF) and Midrex and Correx. Considering the relative abundance of scrap in Zimbabwe, the EAF route can be considered to meet part of the local demand. Restructuring of ZISCO to unlock value and attract new investors at different stages of the value chain is recommended to ensure any challenges to one entity do not shut down the whole value chain.

3.2.3.2 Reduction of Labour Costs

According to the World Economic Forum (WEF) 2014-15, the Global Competitiveness Rating (GCR) for Zimbabwe on labour market efficiency is 137/144. The country was also ranked in the bottom 3 in terms of hiring and firing practices, flexibility of wage determination and pay and productivity indicators. According to the same GCR rating, Zimbabwe's output per unit of labour was USD2000.00 as compared to an estimated regional average of about USD10000.00 (*5 times lower*). The Consultant therefore proposes the review of labour laws to align them to productivity and targeting comparison with regional target output of about USD10000.00/ unit of labour. Investment in automated and semi-automated technology like CNCs and robotics can minimise labour used in the sector and hence reduce the unit labour cost per unit.

3.2.3.3 Cost of Utilities

The major cost of utilities is driven by electricity. This cost mainly affected the foundry industry and the metal converters. Investment in energy efficient technology and energy management systems to ensure maximum demand management is recommended to ensure low energy intensities. Special supply lines must be dedicated to sensitive subsectors like foundries and smelters which are adversely affected by power outages.

3.2.3.4 Cost of Transport

Since steel is heavy and transported all the way from South Africa to Harare and the markets by road, the costs of transport become high. A special arrangement for transportation can be made to NRZ with the involvement of stakeholders to ensure that engineering products and services are transported reliably and at low cost in the value chain. Special financial arrangements and investment into refurbishing the railway line can be made in the short to medium term to ensure reliable and cost effective transportation of goods and services. Distribution Centres can be decentralised in such a manner that engineering hubs away from Harare like Bulawayo, Mutare and Gweru can get their steels closer to their production sites.

3.2.3.5 High cost of production due to inferior technologies

The use of CAD/CAM in manufacturing is recommended as it significantly reduces the labour cost, increases production capacity and ensures improved quality, reliability and consistency in product quality. However, investment in such technologies must be strongly linked to end markets to avoid the establishment of white elephants. The investments must also be strongly backed by technology transfer, skills development and sustainable technical support and back-up services to ensure viability of the new technologies.

3.2.3.6 Sourcing of long term finance at competitive rates for strategic rates

The average interest rates of 18% were high, at the same time long term finance is not available. Once strategic and viable subsectors are identified, lobbying for funding at competitive rates for capitalisation and working capital is proposed through the Engineering Iron and Steel Association of Zimbabwe. Targeted lending institutions include European Investment Bank, African Development Bank, etc.

3.2.4 Improved Production Capacity through Value Chain Linkages and Clusters

The establishment of value chain clusters to increase capacity to meet the needs of both local and export markets requiring huge volumes that cannot be met by individual firms. The cluster development is against the background that the major competitor, South Africa, already has adequate capacity to meet the regional demand as well as excess capacity. Therefore the only way to beat this competitive advantage of South Africa is through special clusters that are strongly linked to the end markets with the support of government policy. The targeted value chain clusters include, agriculture (*food and nutrition cluster*), mining (*beneficiation and value addition cluster*), automotive (beneficiation and value addition cluster), infrastructure development and power projects (*infrastructure and utilities cluster*). The cluster guidelines are presented in *Annex 4*. Value chain selection criteria proposed is presented in *Annex 3*.

Inclusive participation through incorporation of SMEs including micro-firms is proposed. The process includes the formalisation of micro-firms, training of SMEs on quality, standards and compliance related issues like tax, ISO etc., with the involvement of SAZ, SIRDC, SMEAZ and Ministry of SMEs. Provision of infrastructural support to SMEs is also envisaged as well as marketing and branding support systems.

3.2.5 Formalisation of the informal sector through inclusive participation and incentives

Formalisation of the informal practitioners in the EIS is proposed in the following stages. The first step proposed is the training of the firms on business registration, statutory and legal compliance, tendering and benefits of compliance. Organisations such as EISAZ, SMEAZ, Ministry of SMEs and Technological and Commercial Information Promotion Systems (TIPs) and SAZ can be capacitated to train the SMEs on such matters. In the process, a database is created for the informal sector with potential for formalisation. The training and registration process must be subsidised since the cost of business registration was cited as expensive by the firms. These SMEs can also be organised to utilise factory shells that are idle as focused clusters that are linked to viable value chains. In this way, funding for their capitalisation, skills development and productivity improvement training and implementation programmes can be enhanced.

3.2.6 Women in the EIS sector

It is recommended that activities and programmes that encourage women to participate in the engineering, iron and steel sector be initiated from early learning to tertiary education level and vocational training.

CHAPTER III: STRATEGY EXPECTED IMPACT, PROPOSED OBJECTIVES AND ACTIVITIES

1. Strategy description

The matrix which follows is a detailed description of the strategy, which outlines priorities for implementation over the next five years. It has identified four goals, namely to develop:

- a governance model that ensures the institutional linkages are relevant and robust for the sector and its stakeholders, by applying '6 capitals thinking' thereby achieving unity of purpose and a sustainable business model for all sector players
- voice and visibility for the sector by strong advocacy to achieve coherent policy. Address macro issues that compromise the sector's competitiveness and prioritise issues of strategic significance.
- a strong network of business support services that addresses the sector needs and priorities.
- the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

The challenges outlining the sector are significant and require urgent and concerted action by all sector stakeholders if it is to reclaim its place as a significant industry player in the region. Most critical are the resuscitation of NewZim Steel and the addressing of the energy supply constraints. The benefit of this is that not only will it provide the basis for the sector to once again operate a full capacity; it will ALSO enable the sector itself to contribute directly to the revitalisation of the Zimbabwean economy through investment projects in rail, construction, renewable energy and the like. In addition, the opportunity to provide products and services to other key sectors, in particular agriculture and mining will have direct benefits to the economy in fostering domestic growth. Lastly the stated intention of engaging with the informal sector will bear fruit in the form of job creation and added tax revenues for government.

The strategy acknowledges that the following key constraints to the sustainability of the sector need to be addressed:

- Stiff competition from foreign products and informal domestic producers;
- Lack of market information;
- Low demand, both domestic and regional and international, for Zimbabwean manufactured products;
- Low production capacity;
- Obsolete technology and lack of skilled labour;
- Lack of funding for both R&D and investments;

The strategy that has been proposed is ambitious and the sector players are under no illusion as to the difficulty that will be encountered in raising the necessary resources to turn it into a reality. However, there is also a sense of optimism that the will of the stakeholders is there to take the bold steps that are necessary.

In the short term, the key six interventions below have been identified as a means to kick-start the strategy, thereby giving it the best opportunity to achieve the stated vision.

1.1 The Six Pillars to strategy implementation

Stakeholders stressed the need to identify those interventions that are able to produce immediate and effective impact that will set the foundation for the medium and long term implementation of the strategy. Six pillars have been identified through this approach:

Pillar 1: Skills and Efficiency enhancement to Sector SMEs: This is to be pursued through direct training and a training of trainers in Lean Manufacturing Approach, with a focus on Production Efficiency. This specifically addresses Goal 4, and covers all 3 Objectives (adequate and relevant human capital, value added entrepreneurship and adequate and relevant technical capacity).

Pillar 2: Market Studies and Competitiveness: This with a focus on Market demand (which products in which –domestic, regional, international – markets), the cost of doing business and a competitiveness benchmarking with the South African sector. This specifically addresses Goal 1, Objective 1 (enhanced collaboration) and Goal 3, Objective 2 (increase market share).

Pillar 3: EISAZ's capacity development: Empower the sector Association on Marketing, Advocacy and Lobbying skills in order to enable it to be the leading driver for the revival of the sector. This specifically addresses Goal 1, Objective 3 (strong EISAZ) and Goal 2, Objective 1 (policy coordination and coherence).

Pillar 4: Cluster Development: With a focus on the expanding informal sector, which have been confirmed by the Sector Studies to be a critical actor, which the country needs to mainstream with the formal economy to revitalize the competitiveness of the Value Chain. This specifically addresses Goal 1, Objective 1 (enhanced collaboration) and Goal 2, Objective 2 (revive the sector).

Pillar 5: Skills upgrading: This in partnership with support institutions and universities to employees from the EIS sector. This specifically addresses Goal 4, Objective 1 (adequate and relevant human capital).

Pillar 6: Opportunity enhancement: Specifically exploring ways that the sector can contribute to and benefit from the expansion and diversification of energy supply to the country, with a focus on alternative and renewable energy sources, such as solar, wind and hydro. This specifically addresses Goal 3, Objective 3 (cost effective supply chain).

1.2. The 4 Metrics to achieving the Strategic Initiatives

The metrics that follow, outline in detail the specified goals, objectives, measures, targets, strategic initiatives and supporting actions to achieve these initiatives.

The sector has committed to applying '6 capitals thinking', acknowledging that sustainable business models require recognition of:

- Natural capital

- Social Capital
- Financial capital
- Manufactured capital
- Human Capital
- Intellectual Capital

The strategy addresses the importance of all of these capitals and in so doing, has committed itself as a sector to the creation of long-term, sustainable value for Zimbabwe. The metrics are presented in the order of:

- Governance
- Advocacy
- Business support
- Human and technical capital

1.2.1 GOVERNANCE

GOAL: Develop a governance model that ensures the institutional linkages are relevant and robust for the sector and its stakeholders, by applying ‘6 capitals thinking’ thereby achieving unity of purpose and a sustainable business model for all sector players

OBJECTIVE 1: To enhance collaboration between the role players in order to ensure that there is a sustainable value chain						
Measure1: Internationally competitive steel supplies						
Targets: 1. Price and quality parity achieved on iron and steel manufacture by 2020						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Enhance competitiveness and sustainability in the Value Chain	High	1. Study and recommend proper legal processes for restructuring of ZISCO and establishment of a new steel making company 2. Establish a technical committee to re-establish beneficiation of iron and steel resources 3. Implementation of a comprehensive value chain map in line with ZEPARU and SIRDC findings	25,000	EISAZ, Advocacy, MoIC, MoF	1/11/2015	31/3/2016
Measure 2: Extent of value addition in the sector						
Targets: 1. Achieve, at least, 75% of value addition by 2020						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Promote value addition for priority sectors	Medium	1. To acquire quality, relevant skills and modern technology for value addition 2. Establish ToRs for consultancy services for accreditation to international standards 3. Implementation of policies and incentives to facilitate the establishment of Innovation Hub and investment in R&D	35,000	EISAZ, Advocacy & Governance Sub-Committees	Ongoing	31/3/2016
Measure 3: Level of informal and formal sector integration						
Targets: 1. Tax base of formal sector increased by 100%						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Accelerate the formalization of the informal sector	High	1. Review or establish an SME Charter for representation and linkage programmes 2. Establish ethical procurement policies and practices for large companies (for those SMEs who comply with legislation e.g. ZIMRA)	2,000	EISAZ, MoSMEs, MoF, MoIC, BAZ	1/11/2015	31/3/2016

GOVERNANCE (cont)

GOAL: Develop a governance model that ensures the institutional linkages are relevant and robust for the sector and its stakeholders, by applying ‘6 capitals thinking’ thereby achieving unity of purpose and a sustainable business model

OBJECTIVE 2: To achieve a constructive collective bargaining environment						
Measure1: Number of successful negotiations						
Targets: 1. 100% successful negotiations (maintenance of stable IR at enterprise level)						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Centralised bargaining for sector determined wages	High	1. Review Collective Bargaining Agreement to align with new Constitution 2. Review NEC Constitution and amend to comply with the Labour Act (Engineering Medical Fund) 3. Enhance negotiation skills and build capacity of secretariat to articulate issues of productivity bargaining and understanding of labour economics 4. Training at all levels for good IR, understanding/appreciation of labour law, policies, practices	32,000	EISAZ, MoPS,L& SW	1/11/2015	31/3/2016 and ongoing
OBJECTIVE 3: To enhance the capacity of the sector association (EISAZ)						
Measure1: Number of additional services						
Targets: 1. Two additional services per year						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Bolster secretariat	Medium	1. Review and upgrade skill mix within the Secretariat	5,000	EISAZ	31/1/2016	Ongoing
Measure 2: Good governance principles and practices applied						
Targets: 1. KPIs at Governance, Board and Operational levels						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Regular performance reviews	High	1. Develop a template to evaluate governance, strategic & operational performance of EISAZ 2. Establish suitable structure for EISAZ that is fit for purpose (member service focused, sub-committees and the like)	8,000	EISAZ, Advocacy & Governance Sub-Committees	Ongoing	31/3/2016
Measure 3: Sector Strategy Implemented						
Targets: 1. Monitoring and evaluation measures						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Drive 6 capitals thinking (Natural, Manufactured, Social, Financial, Human, Intellectual)	High	1. Establish Stratcomm and agree ToRs 2. Develop and implement a robust Communication strategy	13,000	EISAZ, Advocacy & Governance Sub-Committees	Ongoing	31/3/2016
		GRAND TOTAL	122,000			

1.2.2 ADVOCACY

GOAL: Develop voice and visibility for the sector by strong advocacy to achieve coherent policy. Address macro issues that compromise the sector's competitiveness and prioritise issues of strategic significance.

OBJECTIVE 1: To improve policy coordination and coherence in the EIS sector; harmonize the regulatory frameworks to reduce transaction and compliance costs						
Measures: Efficient service delivery by all Regulatory Authorities and related Government Agencies; Improvement in the following strategic areas: Value Addition and Linkages, SME Support Programmes; (ED&P) Duty Drawback System, Special Processing Zones, Export Credit Reinsurance Fund, African Trade Insurance Agency; (RMTA) exploit duty and quota-free access, Special Safeguard Mechanisms, Special Products; (STPI) Tariff-Based Instruments, Non-Tariff Measures, Trade Defence Mechanisms, Trade Development						
Targets: To set up and formalize an Advocacy Committee by the 1st of November 2015; To have a position paper on all the regulatory instruments by the 31st of March 2016; To engage Government and make follow ups on the proposed SIs from April 2016 to June 2016;						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Develop an Advocacy Strategy and formalise Advocacy Structure	High: Strategy, structure	<ol style="list-style-type: none"> 1. National Executive Committee develop ToR and appoint the Advocacy Committee 2. Consultative engagement with key stakeholder constituencies 3. Outline key strategic advocacy issues and prioritise in relation to existing and potential resources 4. Agree meetings with key constituencies to make case 5. Undertake training in advocacy and policy engagement issues 	4,000	EISAZ and National Executive Committee	1/11/2015	Update quarterly

ADVOCACY (cont)

GOAL: Develop voice and visibility for the sector by strong advocacy to achieve coherent policy. Address macro issues that compromise the sector's competitiveness and prioritise issues of strategic significance.

OBJECTIVE 2: Implement strategies that revive the sector and advance Value Addition						
Measures: a) Increased incentives and volume of local production and exports; b) Increase in the number of local products in the Steel Industry; c) Decrease in the export of raw materials.						
Targets: Have a statement of Intent and National Work Plan in place for SEZs operational by the 31st of March 2016; Operationalization of ZISCO Steel by end of 2016; and Energy Policy implemented; Regional networks						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
1. Advocate for the granting of Special Economic Zones to the Steel Industry; 2. NewZim Steel resuscitated; 3. Advocate for hiving out of other ZISCO Steel subsidiaries such as Lancashire Steel so that they can operate independently.	High: Advocate for the operationalization of ZISCO Steel. High: Advocate for hiving out of other ZISCO steel subsidiaries High: Advocate for the granting of Special Economic Zones to the Steel Industry;	The Industry will lobby for the following; Supply Side: 1. Resuscitate iron and steel plant: NewZim Steel 2. Remove import duties on all raw materials for duration of NewZim Steel commissioning (duty holiday) 3. Introduce beneficiation milestones in mining leases and make downstream value addition a bid variable 4. Impose small export tariff on select raw material exports 5. Undertake independent assessment on viability of establishing a stainless steel slab plant 6. Expand Indigenisation Law to cover purchases from indigenous suppliers 7. Make local content commitments a bid variable 8. Where local capacity exists in supplying capital goods, scrap import duty exemptions 9. Establish new steel producers (Mwanesi?) to sell at export parity prices in domestic market 10. Derive a working model for scrap metal exports (resolve industry tensions) 11. Establish a sector specific skills development authority to ensure supply of sector specific relevant skills. Obligatory levy of <=5% of payroll (based on SA SETA model) 12. Introduction of pre-shipment inspection for designated products that are identified as potentially sub-standard and establish a National Quality Standards Authority	TBC	Ministry of Industry and Commerce, Ministry of Mines and Mining Dev, Ministry of Finance	1/11/2015	31/12/2017/8

ADVOCACY (cont)

GOAL: Develop voice and visibility for the sector by strong advocacy to achieve coherent policy. Address macro issues that compromise the sector's competitiveness and prioritise issues of strategic significance.

OBJECTIVE 2 (cont): Implement strategies that revive the sector and advance Value Addition						
Measures: a) Increased incentives and volume of local production and exports; b) Increase in the number of local products in the Steel Industry; c) Decrease in the export of raw materials.						
Targets: Have a statement of Intent and National Work Plan in place for SEZs operational by the 31st of March 2016; Operationalization of ZISCO Steel by end of 2016; and Energy Policy implemented; Regional networks						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Advocate for Energy Supply for the Sector and By the Sector	High	The Industry will lobby for the following: Cost of doing business: 1. Resolve debilitating power constraints through investment into power generation, establishment of Independent Power Producers (IPPS), investment into renewable energy sources 2. Exempt tax on interest earned on loans made to MSMEs (like small scale gold producers)	TBC	MoEPD, ZESA, MoIC, MoFED	1/11/2015	31/3/2017
Coordinated strategy for trade promotion and export development	High	The Industry will lobby for the following: Demand Side: 1. Creation of regional integration networks to overcome limitation imposed by a smaller domestic size capital goods market 2. Enlarge local market through equitable regional integration (SADC, SACU, COMESA, CMA)	TBC	EISAZ, Zimtrade, MoIC	1/11/2015	31/12/2017

ADVOCACY (cont)

GOAL: Develop voice and visibility for the sector by strong advocacy to achieve coherent policy. Address macro issues that compromise the sector's competitiveness and prioritise issues of strategic significance.

OBJECTIVE 3: To enhance Publicity and Awareness of the EIS sector						
Measure 1: Visibility of the EISAZ Brand and its activities/products/services						
Target: Brand recognition						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Marketing & Communications Strategy	High	1. Branding strategy for EISAZ 2. Create and fully utilize social media platforms, print and electronic 3. Update the EISAZ website regularly	11,000	EISAZ	Ongoing	31/12/2016
Measure 2: Membership Numbers						
Target: Increase base by 20% pa until 2020						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Membership drive and visit Provinces at least 1/year	High	1. Incorporate SMEs in the Association 2. Improve the services to members 3. Update database of stakeholders 4. Organizing outreach programmes	23,000	EISAZ, MoSMEs, MoIC, SME Associations, Zimtrade	Ongoing	31/12/2020
Measure 3: Relationship with other bodies						
Target: Formal membership/MOUs						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Reaching out campaign: Establish linkages with local, Regional and International associations/players	High	1. Attending local, Regional and International seminars/ Conferences / Expos. 2. Constant engagement with Trade Attaches	25,000	EISAZ, MoFA, Zimtrade	Ongoing	31/12/2016
GRAND TOTAL			58,000			

1.2.3 BUSINESS SUPPORT NETWORK

GOAL: Develop a strong network of business support services that addresses the sector needs and priorities.

OBJECTIVE 1: Access to Long Term, Cheap Finance						
Measure1: Availability of long term finance at internationally competitive rates						
Targets:1. \$4.5 billion at LIBOR + 1% for medium to long term loans						
2. 30% of EISAZ members accessing cheap funding growing to 50%						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Strategic fund established to access to long term cheap pool of funds for sector members	High	1. Identify possible sources of long term finance 2. Approach MoF, MoIC and BAZ with sector development proposal 3. Establish criteria for access to funding with the lending institutions 4. Communicate the set criteria to sector members	3,000	EISAZ and business support representatives	1/11/2015	21/12/2015
Measure 2: Improvement in the ease of doing business index						
Targets: 1. Improve World bank Index on doing business from 171 to below 150						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Policy support for ease of access to FDI	Medium	1. Proposal in place for submission to MoF and MoIC	4,000	EISAZ, Advocacy Sub-Committee, MoF and MoIC	Ongoing	29/2/2016
Measure 3: Increase in number of local banks supporting the EIS sector(as is case with some local banks setting aside funds for specific sectors e.g. agriculture)						
Targets: 1. At least 50% of the local banks setting aside funds for the sector. (Currently there are no local banks with specific funding for the sector)						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Access to the sector-specific funding from local banks	Medium	a. Lobby MoF and MoI for support of the sector development proposal b. Engage BAZ with sector development proposal c. Establish criteria for access to funding with BAZ d. Communicate the set criteria to sector members	2,000	EISAZ, MoF, MoIC, BAZ	1/11/2015	31/3/2016

BUSINESS SUPPORT NETWORK (cont)

GOAL: Develop a strong network of business support services that addresses the sector needs and priorities.

OBJECTIVE 2: Improved local market conditions and access to regional/international markets						
Measure 1: Business volumes by quantity (indicating increased market size <u>and</u> share of market by domestic producers)						
Targets: 1. At least 65% of EISAZ members to increase capacity utilisation from an average of +/- 35% to 50% in next 2 years						
2. At least 50% of EISAZ members participating in local and regional fairs/exhibitions (and obtaining orders)						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Marketing Hub established for dialogue and synergies between suppliers, manufacturers and consumers.	High	1. Identification and participation in local and regional fairs 2. Compile database of sector members with work contact details and products/services offered for distribution to members in the value chain 3. Participating in other sector related activities and hold a sector specific exhibition 4. Interaction with other related sector representatives e.g. Chamber of Mines to develop networks and markets	10,000	ZimTrade/EISAZ members, CZI, CoM, Farmers' Unions	1/11/2015	31/12/2016
Measure 2: Number of distributors in the sector locally and regionally						
Targets: 1. Increase number by 20% pa each year until 2020						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Distribution Hub established	Medium	1. Coordinating the interaction between the stakeholders and the sector 2. Establish the marketing & distribution arm within EISAZ which drives all sector related marketing activities	7,000	EISAZ, BSN Sub-Committee	1/11/2015	2020
Measure 3: Production, sales and export volumes from the cluster (special economic zone [SEZ])						
Targets: 1. 15% annual increase of exports by EISAZ cluster members						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Establish a pilot cluster (SEZ)	High	1. Identify potential cluster participants and communicate the benefits of SEZs 2. Develop and submit a proposal to Government	10,000	EISAZ, ZimTrade	1/11/2015	31/12/2016
Measure 4: Website portal hits on EISAZ website						
Targets: 1. 100% accessibility to portal by EISAZ members						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
User focused portal established that addresses market, technical and sector specific information for members	High	1. Compile relevant market information 2. Develop a website portal 3. Promote the portal and encourage members to use it 4. Consistently update the portal	3,500	EISAZ, BSN	Immediate	31/12/2016

BUSINESS SUPPORT NETWORK (cont)

GOAL: Develop a strong network of business support services that addresses the sector needs and priorities.

OBJECTIVE 3: Develop a cost-effective supply chain						
Measure 1: Low-cost and efficient transport service						
Targets: 1. 500% Increase in volumes moved by rail over next 5 years						
2. Reduced costs of road transportation						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Resuscitate the rail network	Medium	<ol style="list-style-type: none"> 1. Develop a proposal based on inputs from EISAZ members for input into rail resuscitation. 2. Identify specific areas where sector can contribute thereby rebuilding the country whilst benefitting economically (quid pro quo) 3. Present proposal to MoT and NRZ and lobby for EISAZ members' participation 	5,000	EISAZ, Advocacy Sub-Committee, MoT, NRZ	Immediate	31/12/2015
Measure 2: Quantity of raw material (e.g. steel) obtained locally: 40% to 80%. (Currently over 60% of raw materials utilised in sector are imported).						
Targets: 1. Decrease in raw materials imported from current 60% to 20% over next 5 years						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
NewZimSteel resuscitated <ul style="list-style-type: none"> • Local mining and beneficiation of primary raw materials • Local production of other raw materials/inputs used in the EIS sector 	High	<ol style="list-style-type: none"> 1. Identify raw materials that can be sourced/manufactured/beneficiated locally 2. Develop a proposal outlining the raw materials required from ZISCO and other primary producers, by the local iron and steel sector 3. Identify and engage other potential local producers of raw materials required by the local Iron and Steel players 4. Engage MoIC for the resuscitation of ZISCO 5. Invest in R&D projects for local production 	4,000	EISAZ, Advocacy Sub-Committee	1/11/2015	31/12/2016
Measure 3: Increased supply and reduced power cost						
Targets: 1. Increase supply by 100% and reduce power cost from the current 13.5c/kWh in line with the Mid-Term Fiscal Policy to 6c/kWh						
2. Reduction in energy consumption by the sector members						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Use of alternative & renewable power sources & implementation of energy-efficient technologies & practices by sector	High	<ol style="list-style-type: none"> 1. Engage utility supply authorities, MoE and ZERA to reduce the unit cost of electricity 2. Research on alternative power supplies e.g. solar, wind, hydro 3. Engage sector members to identify energy inefficient equipment/processes and identify more efficient alternatives 4. Source funding for technology up-grade (impact investors) 	7,000	EISAZ/SIRDC, MoE, ZERA	1/11/2015	31/6/2016

BUSINESS SUPPORT NETWORK (cont)

GOAL: Develop a strong network of business support services that addresses the sector needs and priorities.

OBJECTIVE 4: Produce high quality products and services						
Measure 1: Number of EISAZ members whose products/services are certified annually						
Targets: 1. 10% per annum increase in EISAZ members whose products/services are certified annually						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Focused campaign to promote product, services and systems certification	Medium	1. Establish the current level of product/service certification within the sector 2. Promote awareness on importance of certification of products/services 3. Collaborate with SAZ for facilitation of ISO and product certification	5,000	EISAZ, SAZ	1/11/2015	Ongoing
Measure 2: Number of sector members who have certified environment and quality management systems. (Currently only 23% of members are certified)						
Targets: 1. At least 50% of sector members with certified Environmental (EMS) and Quality (QMS) Management Systems						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Focused campaign to promote EMS and QMS certification	Medium	1. Establish the current level of product/service certification within the sector 2. Promote awareness on importance of certification of products/services 3. Collaborate with SAZ for facilitation of ISO and product certification	5,000	EISAZ, SAZ/SIRDC	1/11/2015	31/12/2016
Measure 3: Number of improved products/services developed and patented						
Targets: 1. Development and patenting of three new products/services per year by the sector						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Focused campaign to drive innovation in collaboration with SIRDC and tertiary institutions for continuous R&D	Medium	1. Engage utility supply authorities, MoE and ZERA to reduce the unit cost of electricity 2. Research on alternative power supplies e.g. solar, wind, hydro 3. Engage sector members to identify energy inefficient equipment/processes and identify more efficient alternatives 4. Source funding for technology up-grade, preferably from impact investors	12,000	EISAZ/SIRDC, MoE, ZERA	1/11/2015	31/6/2016
GRAND TOTAL			77,500			

1.2.4 HUMAN AND TECHNICAL CAPACITY DEVELOPMENT

GOAL: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

OBJECTIVE 1: To have adequate and relevant Human Capital Capacity						
Measure 1: Productivity						
Targets: 1. Labour Cost/unit of production must be comparable to international benchmarks						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Industry & training institutions to establish skills development programmes for personnel in the sector. Targeting undergraduates, new graduands, practising, unemployed technicians and engineers	Medium	1. Identify key areas for SDP in consultation with all key stakeholders (<i>Conduct a Training needs assessment for the sector</i>). Develop SDPs Programmes for the identified gaps and review existing SDPs [Funding for the Assessment \$8,000]	23,000	EISAZ/ZIE/MoHTESTD	After the launch	31/3/2016
	Medium	2. Develop a Work Readiness Skills Programme for new graduates (SETA Model) [Consultant fees for WRSP and funding for the training programme \$10,000]		EISAZ /MoHTESTD		31/3/2016
	Medium	3. Set up an advisory committee of experts to engage NAMACO and Zimdef to review financial support models for technical training of students [Consultant fees for review funding model review, implementation and monitoring and evaluation \$5,000] <i>(Skills Development Committee for the EIS Sector comprising academia, R&D, Industry and Gvt)</i>		NAMACO/ZimDEF		30/6/2016
Measure 2: Labour Utilisation						
Targets: 1. 80% Labour Utilization						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Multiskilling of operators, technicians and engineers (Compliance with Statutory obligations & Documentary proof)	Medium	1. Develop a multiskilling programme for personnel in the informal and microsector for the critical skills in fabrication like welding, metal work, basic design, etc [Consultant fees for the Multiskilling programme and Funding for the Training Programme \$20,000]	20,000	ZIE/EISAZ/Polytechnics	After the launch	31/12/2016
Implementation of Productivity Improvement Initiatives, e.g Lean Manuf approach	High	1. Set up and capacitate a Productive Improvement Training Centre (Lean) to roll out a lean programme to the sector in partnership with international organisations [Consultant fees, Training expenses \$50,000]	50,000	SIRDC/EISAZ/International Partner	After the launch	31/12/2016

HUMAN AND TECHNICAL CAPACITY DEVELOPMENT (cont)

GOAL: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

OBJECTIVE 1 (cont):To have adequate and relevant Human Capital Capacity						
Measure 3: Quality of products and services						
Targets:1. Number of products and services that compete at regional and international level						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Implementation of Human Capital Quality Management Systems for the EIS Sector.	Medium	1. Development and Implementation of a monitoring and evaluation programme to ensure correct conduct of operations and practice of professionals in the industry [Funding for monitoring and evaluation]	5,000	ECZ/ZIE	After the launch	31/12/2016
	Medium	2. SAZ to roll out outreach training programmes for quality and standards issues [Funding for training, monitoring and evaluation] <i>(Collaboration amongst ECZ, ZIE,SAZ and EISAZ is important to ensure that ethical practices exist in the EIS sector)</i>		SAZ/EISAZ		30/6/2016
Special Skills Development Centres for export oriented products, e.g. i) Welding, ii) Industrial metallurgy, iii) Boilermakers & Sheet Metals, Precision engineering, iv) Project Management Consultancy.	Medium	1. Identification and capacitation specific VCTs/Polytechnics/Technical Universities as Centres of Excellence for Special and Strategic Skills for the sector <i>(To ensure that quality is built in) Example of such projects are Stainless steel vessels, pressure vessels, special pipework, medical equipment, etc)</i>	Funding to capacitate the Training Centre	EISAZ/ZIE/SAZ	After the launch	31/12/2016

HUMAN AND TECHNICAL CAPACITY DEVELOPMENT (cont)

GOAL: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

OBJECTIVE 1 (cont):To have adequate and relevant Human Capital Capacity						
Measure 4: Total number of relevant skilled personnel						
Targets: 1. Over 90% skills needs of the sector available locally at all times						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Bring together industry and technical institutes for collaborating and matching skills needs to industry	Medium	1. Conduct a Skills Needs Survey for the EIS Sector at regional and international level in order to identify the skills demanded by the sector [Funding for the survey (Consultant fees) \$14,000] <i>(Committee comprising universities, polytechnics, EIS Subsectors. A Retention strategy for both the skills and the trainers must be established as well)</i>	14,000	ZIE/EISAZ/Polytechnics	After the launch	31/12/2016
Establish the Sector as the source of adequate and competent special skills for export and subcontracting to the region and international market	High	1. Set up and capacitate a Productive Improvement Training Centre (Lean) to roll out a lean programme to the sector in partnership with international organisations [Consultant fees, Training expenses \$50,000] <i>(Taking advantage of the fact that Zimbabwean technicians and engineers are already in demand both regionally and internationally. The diaspora technicians, engineers and entrepreneurs will enhance technology and skills transfer as well as linkages for human capital exportation)</i>	50,000	SIRDC/EISAZ/International Partner	After the launch	31/3/2016
	Medium	2. Create a flagging database for skills supply and demand for the sector at both local, regional and international level through linkages with bodies like ECSA, SIFSA, etc (Get Diasporans to be members of EISAZ)	Cost of Web Portal dev and maint	EISAZ/ZIE/ECZ		31/3/2016

HUMAN AND TECHNICAL CAPACITY DEVELOPMENT (cont)

GOAL: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

OBJECTIVE 1 (cont):To have adequate and relevant Human Capital Capacity						
Measure 5: Capacity and quality of technical training institutions						
Targets: 1. Availability of globally competitive training infrastructure & equipment relevant to sectoral needs at all local technical training, R&D & learning institutions						
2. Number of facilities shared between industry and training institutions (number of collaborations)						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Upgrading of infrastructural and technical needs of training institutions to match the training needs of the sector	Medium	1. Conduct an Infrastructure, Technology and Equipment needs survey for R&D, Learning & Training Institutions for the purpose of upgrading, rationalisation and collaboration [Funding for the Technology and Equipment needs assessment for technical institutions \$8,000]	8,000	EISAZ/SIRDC (NT/LN)	After the launch	31/3/2016
	Low	2. Establish a sustainable financing proposal for the upgrading of the identified infrastructural and technological facilities [CAPEX for upgrading (In the order of millions - <USD10M)]		EISAZ		31/12/2016
Link training institutions to industry with training facilities for practical exposure.	Medium	1. Inventory of training facilities in industry that can be used by training institutes to match them to the appropriate training needs and institutions. (<i>Models/MoUs for collaborations between training institutes and industry must be established for implementation</i>)[Funding for the Survey (Consultant fees) \$8,000] <i>(Since funding is a challenge for most training institutes, some firms and industries have laboratory facilities and technology that lecturers and demonstrators can take advantage of and use to expose the students. The modalities for collaboration in training will be between the training institutes and the firms). Eg CAD/CAM and the use of CNCs</i>	8,000	SIRDC/ZEPARU	After the launch	31/3/2016

HUMAN AND TECHNICAL CAPACITY DEVELOPMENT (cont)

GOAL: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

OBJECTIVE 1 (cont):To have adequate and relevant Human Capital Capacity						
Measure 5 (cont): Capacity and quality of technical training institutions						
Targets: 3. 100% availability of internationally competitive training personnel at relevant training institutions for the sector						
4. Number of collaborations amongst local training institutions as well as regional and international institutions						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
1. Continuous Assessment of the skills & technical training needs of local training institutions. 2. Train the trainer programmes to equip lecturers & demonstrators. 3. Review qualifications of lecturers based on industrial experience, international exposure, etc. 4. Retention strategy for lecturers.	Medium	1. Conduct a Skills Needs Survey for training Institutions in order to address the gap through developing a training program and recruitment of appropriate trainers [Funding for the Skills needs survey for trainers \$5,000] 2. Develop a sustainable retention strategy for critical skills in the training institutions [Consulting fees for the Retention Strategy \$5,000] (<i>The RS includes incentives that ensure attraction of competent staff within the region. Examples include joint financial support and incentives to lecturers by collaborating firms, associations and enterprises, etc.</i>)	10,000	EISAZ/ ZEPARU	After the launch	31/12/15
	Medium			EISAZ	After the launch	31/03/16
Number of effective collaborations	Medium	1. Rationalisation and streamlining of training activities of local institutions so that they complement each other to produce competent skills (<i>Since funds are not readily available, each institute should have unique competencies that complement the other institute to achieve sector goals</i>) 2. Establish formal linkages and MOUs with regional and international training institutions to facilitate skills development and technology transfer for strategic sectors		MoHTESTD/EISAZ	After the launch	31/07/16
				EISAZ/ZIE/ECZ	After the launch	31/12/16

HUMAN AND TECHNICAL CAPACITY DEVELOPMENT (cont)

GOAL: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

OBJECTIVE 1 (cont):To have adequate and relevant Human Capital Capacity						
Measure 6: Innovation						
Targets: 3. Number of commercialised innovative products						
5. Number of collaborations amongst local training institutions as well as regional and international institutions						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Collaboration amongst R&D and Training institutions, industry and Zimtrade, JSP,SAZ on new product development for the established markets. <i>(Innovation is a product of collaboration amongst different stakeholders driven by market needs)</i>	Medium	1. Establishment of special committee for market intelligence and linkages for the sector	110,000	Zimtrade/EISAZ	After the launch	31/12/16
	Medium	2. Establishment of special research symposiums, exhibitions and trade fairs for the sector [Funding for the trade fairs\$100K]		EISAZ/Zimtrade	After the launch	31/03/16
		3. Establishment of Centres of Excellence and their capacitation for strategic research areas in institutions of higher learning and R&D [CAPEX for the Centres of Excellence for Strategic Research (<10M)]		SIRDC/EISAZ/MoHTESTD	After the launch	31/12/16
		4. Establish an Incentivisation and support programme to promote and reward innovation in the sector [Consulting fees for the Incentivisation Support Programme for Innovation \$10,000]		EISAZ/ARIPO	After the launch	31/12/18
		5. Establish technology transfer and commercialisation vehicles for new products		RCZ/ARIPO/MoHTESTD	After the launch	31/07/16
Awareness training on IP and patenting	Medium	1. Training of personnel in R&D and training institutes, associations and industry on IP and patenting	Funding for the training programme	RCZ/ARIPO/MoHTESTD	After the launch	31/07/16

HUMAN AND TECHNICAL CAPACITY DEVELOPMENT (cont)

GOAL: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

OBJECTIVE 2: To promote value added entrepreneurship and create employment						
Measure 1: Formal employment level (Promotion of formal employment)						
Targets: 1. Increasing employment levels (by 40 % in three years) subject to favourable preconditions being met						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Policy support for sustainable markets for the locally produced goods. <i>(The policy support must be aimed at complementing the SMEs charter including tax incentives, export incentives as well as facilitating value chain linkages involving SMEs, Large Scale Enterprises and Multinational companies, Government, Developmental Agencies and NGOs)</i>	Medium	1. Identify and create market and supply chain linkages for the locally produced goods [Funding for the creation and maintenance of the marketing and supply chain platform]	\$100,000	EISAZ/MoSMEs	After the launch	31/03/16
	Medium	2. Develop and present a procurement policy that promotes capacitation and participation of SMEs in both local and global value chains involving MNCs, Large Enterprises, Government projects, Developmental Agencies and NGOs [Consultancy fees for policy development]		EISAZ	After the launch	31/03/16
	Medium	3. Identification and provision of sustainable infrastructural and financial support to SMEs. [Seed and Revolving funds, Administration Cost, Rentals] <i>(Taking advantage of factory shells and office space that is lying idle in the industrial area and negotiating for sustainable rentals and leases)</i>		MoSMEs/EISAZ	After the launch	31/06/16
Measure 2: Number of New enterprises, products and services						
Targets: 1. Growth in new enterprises 20% pa until 2020						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Capacitation of SMEs and their associations for value added entrepreneurship (EISAZ,SMEAZ,SEDCO)	Medium	1. Establish a demand survey for new products and services (Feasibility Study) 2. Sourcing of financial support to SMEs associations for training of SMEs in the sector on legal and regulatory compliance issues, business planning, Marketing, etc [Funding for training resources including the human capital (USD100K) <i>(These associations must be capacitated to train SMEs on entrepreneurship, tax laws, legal and regulatory compliances, procurement, quality management systems, lean, etc)</i>	\$100,000	EISAZ/Zimtrade	After the launch	31/07/16

HUMAN AND TECHNICAL CAPACITY DEVELOPMENT (cont)

GOAL: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

OBJECTIVE 2: To promote value added entrepreneurship and create employment						
Measure 2 (cont): Number of New enterprises, products and services						
Targets: 1. Growth in new enterprises 20% pa until 2020						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Entrepreneurship training for laid off employees. VCTs and Incubation Hubs must be well capacitated for the sector. (A similar model to the IndoZim one was proposed)	Medium	Create a platform (virtual platform) for technical expertise integration (Consortiums) [Funding for platform creation] <i>[This comes against the background that diverse expertise in the sector is available but not organised to pursue big tenders in engineering projects. If well organised, they can competently bid for big projects and win]</i>	20,000	EISAZ	After the launch	31/07/16
Review labour laws to align them with productivity and the dynamic business environment	Low	Negotiation with the Ministry of Labour for productivity based remuneration	TBC	EISAZ	After the launch	31/06/16
Value Chain linkages and cluster organisations for strategic subsectors and their products and services for both import substitution and export market	Medium	Establish Value Chain Maps for strategic and special products with high impact and develop cluster/ special economic zones proposals involving all the key stakeholders [Funding for consultant fees for VC Mapping] <i>(Identify locally based companies and skills, eg for products like grinding media, mitre gears, and rolling stock, solar and alternative energy products, and project management consultancy).</i>	5,000	EISAZ	After the launch	31/03/16

HUMAN AND TECHNICAL CAPACITY DEVELOPMENT (cont)

GOAL: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

OBJECTIVE 2: To promote value added entrepreneurship and create employment						
Measure 3: Revenue generated in the sector						
Targets: 1. Fiscal Contribution target (USD1Billion from SMEs sector by 2018)						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Trade Promotion and Creation of marketing platforms for local enterprises, BIC - Zimtrade	Medium	1. Formulate proposal to regulate importation of goods that can be produced locally and incentivise exports [Funding for the proposal]	20,000	EISAZ/Zimtrade	After the launch	31/07/16
Formalisation of the informal sector to tap into existing and new markets and access funding. (Training on Tax and Legal and Regulatory compliance, Capacitate the training institutions like SAZ, SMEAZ, SEDCO, EISAZ and ZIE. Also review the cost of compliance through rationalisation and streamlining of compliance processes	Medium	1. Skills Development Programme for micro and small enterprises on tax administration and regulatory compliance. [Funding for programme development as well as training \$100K] <i>The SDP should also be extended to the artisanal skills with the involvement of VCTs and polytechnics to attain certification</i>	100,000	MoSMEs	After the launch	31/07/16
	Medium	2. Review of tax compliance procedures and cost and develop a proposal for the sector in order to reduce the cost and ease of doing business in the sector [Consultancy fees for the legal and regulatory compliance review 20,000]	20,000	EISAZ	After the launch	31/07/16

HUMAN AND TECHNICAL CAPACITY DEVELOPMENT (cont)

GOAL: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

OBJECTIVE 3: To have adequate and competitive technical capacity						
Measure 1: Productivity (Number of competitive technologies introduced per subsector)						
Targets: 1. Improved Output/Per Factor of Production (Benchmark against Global best practice)						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Identify sector relevant technologies to substitute obsolete technology and enhance competitiveness and carry out feasibility studies and due diligences	Medium	Business Process Reengineering at selected enterprises [Funding for the Survey and analysis]	100,000	EISAZ/Volunteer Companies	After the launch	31/07/16
Measure 2: Cost of production						
Targets: 1. Improved Margin/Per Factor of Production (Benchmark against Global Best Practice)						
Implementation of Productivity Improvement Initiatives, e.g. Lean manufacturing approach	High	Develop a skills development and technology transfer programme for new technologies [Funding for SDP and technology transfer]	100,000	EISAZ/Selected SMEs	After the launch	31/03/16
Measure 3: Increased Capacity/Capacity Utilisation						
Targets: 1. Improve Capacity Utilisation to above 60% by December 2018. For capacity, increase in installed capacities for subsectors is an indicator (Units or Tons/yr)						
2. Increased Market Share (Refer to Zimtrade and TradeMap for specifics)						
Prioritise subsectors with high impact in the EIS and identify sources of long term finance at competitive interest rates	Medium	1. Capacity needs assessment to match installed capacity to tonnage/units requirements on the market [Funding for the assessment]		EISAZ/ZEPARU	After the launch	31/03/16
		2. Advocacy Group to lobby for Capital financing at internationally competitive rates for viable projects (Budget and Finance Committee to provide details to Advocacy)		EISAZ	After the launch	31/07/16
		3. Develop an inclusive selection criteria to identify champions in each subsector for pilot implementation and provide CAPEX at competitive lending rates [Funding for CAPEX]		EISAZ	After the launch	31/07/16

HUMAN AND TECHNICAL CAPACITY DEVELOPMENT (cont)

GOAL: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

OBJECTIVE 3 (cont): To have adequate and competitive technical capacity						
Measure 3 (cont): Increased Capacity/Capacity Utilisation						
Targets: 1. Improve Capacity Utilisation to above 60% by December 2018. For capacity, increase in installed capacities for subsectors is an indicator (Units or Tons/yr)						
2. Increased Market Share (Refer to Zimtrade and TradeMap for specifics)						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Prioritise subsectors with high impact in the EIS and identify sources of long term finance at competitive interest rates	Medium	4. Business Support to Carry out a Baseline Market Survey and Competitor Analysis for increased market share, identify opportunities for new products and markets [Funding for baseline survey]		EISAZ	After the launch	31/07/16
Measure 4: Return On Investment (ROI)						
Targets: 1. Reduction of payback period to < 5 years						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Feasibility Study and Due Diligence on New technologies for Strategic Subsectors (e.g. CAPEX Evaluation for New Foundry/Smelting technologies to meet the requirements of the regional mining Sector)	Medium	Advocacy Group to establish a technical committee to lobby for technical support for continuous improvement and competitive technologies adoption for the sector [CAPEX for new technologies and investments]		EISAZ	After the launch	31/07/16

HUMAN AND TECHNICAL CAPACITY DEVELOPMENT (cont)

GOAL: Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity

OBJECTIVE 3 (cont): To have adequate and competitive technical capacity						
Measure 5: Quality, Standards and Compliance						
Targets: 1. Compliance to relevant local, regional and international requirements (e.g SAZ, NSSA, EMA, ASO)						
<i>Strategic Initiative</i>	<i>Priority</i>	<i>Actions</i>	<i>Resources</i>	<i>Who</i>	<i>Start</i>	<i>End</i>
Assessment of the compliance requirements of the Sector that makes it regionally and internationally competitive.	Medium	Carry out a Compliance Needs Assessment for the Sector [Funding for the compliance needs assessment for strategic subsectors] <i>This is against the fact that about 77% of the firms are not certified as far as QMS and EMS are concerned</i>		EISAZ/SAZ	After the launch	31/12/16
Certification of SMEs and products to comply with different market requirements (ISO Series), Reduce Cost of compliance through rationalising of process	Medium	Technical committee to source cheap funding for process improvement, compliance, certification and accreditation of enterprises to local, regional and international standards [Funding for certification]		EISAZ/SAZ	After the launch	30/06/17
Rationalised testing facilities for strategic EIS products and services. These testing facilities shall be available to firms and competitive rates (e.g NDT, FTIR, SEM, etc)	Low	EISAZ to identify the testing requirements for the EIS sector, and SAZ to develop a proposal for sustainable running of the facility and source funding for CAPEX [CAPEX for testing facility]		EISAZ/SAZ	After the launch	30/06/16
	Medium	EISAZ to make a proposal for rationalisation of regulatory activities of compliance to minimise administrative lead times and reduce the cost of compliance [Funding for the development of the rationalisation proposal]		EISAZ	After the launch	30/06/16

ANNEXES

Annex 1: LIST OF PARTICIPANTS

Our gratitude is expressed to the following who attended workshops, participated in working groups or rendered advice and support to the process

<u>Name</u>		<u>Designation</u>	<u>Organisation</u>
Ticha	Carabga	HR & Corporate Executive	Tregers
Billiat	Chaderopa	Min. of SMEs & Co	Min. Of SMEs
Masimba	Chamburuka	General Manager- Powerspeed Electrical	EISAZ
Kudzai	Chidzonga	Economist	Min of Industry and Commerce
Gibson	Chigumira	Executive Director	ZEPARU
Fred	Chimpondah	Managing Director	Stainless Steel Products
Cornelius	Dube	Senior Research Officer	ZEPARU
Eve	Gadzikwa	Director General	SAZ
T	Gawaza	HR Administrator	Clarson & Company
CK	Jarare	Manager	AFA
Charles	Jena	General Manager	Imperial Refrigeration
Admire	Jongwe	Market Advisor	ZimTrade
Callisto	Jokonya	CEO	Imperial Refrigeration
Brenda	Katsande	Financial Manager	AFA
Ambrose	Kavu	Manager	SIRDC-TIPS
Varaidzo	Kudenga	Finance Manager	Clarson & Company
Zondi	Kumwenda	CEO - Zimplow Holdings	EISAZ
Hazel	Magumise	Enterprise Development Department	Min of Industry and Commerce
Blessing	Munatsi	Managing Director	Jacob Bethel Corporation
S.D.	Mangoma	Director of Enterprise Development,	Min of Industry and Commerce
Paul	Mashambe	Principal Business Development Officer	Min. Of SMEs
Wellington	Matsika	Research Analyst	ZEPARU
Patrick	Munyaradzi	MD –Deven Engineering (Pvt)(Ltd)	EISAZ
Farai	Mutambanengwe	Executive Officer	SMEAZ
Fambaoga	Myambo	Research & Development	Min. of Industry & Commerce
Lloyd E N	Nyemba	Senior Engineer	SIRDC
Thelma	Samapundo	Engineer	SIRDC
M	Tapera	Industry	Min. of Industry & Commerce
Austin	Tigere	CEO	Monopumps
Ntando	Tshabangu	National Secretary	EISAZ
Christopher	Tsimba	Trade Information Center Manager	ZimTrade
Hillarid	Zambuko	Metallurgist	Ziscosteel
Leo	Zulu	Engineer	SIRDC
Innocent	Zvarevashe	Factory Engineer	Jacob Bethel Corporation

Annex 2: WORKSHOP 1 OUTPUTS

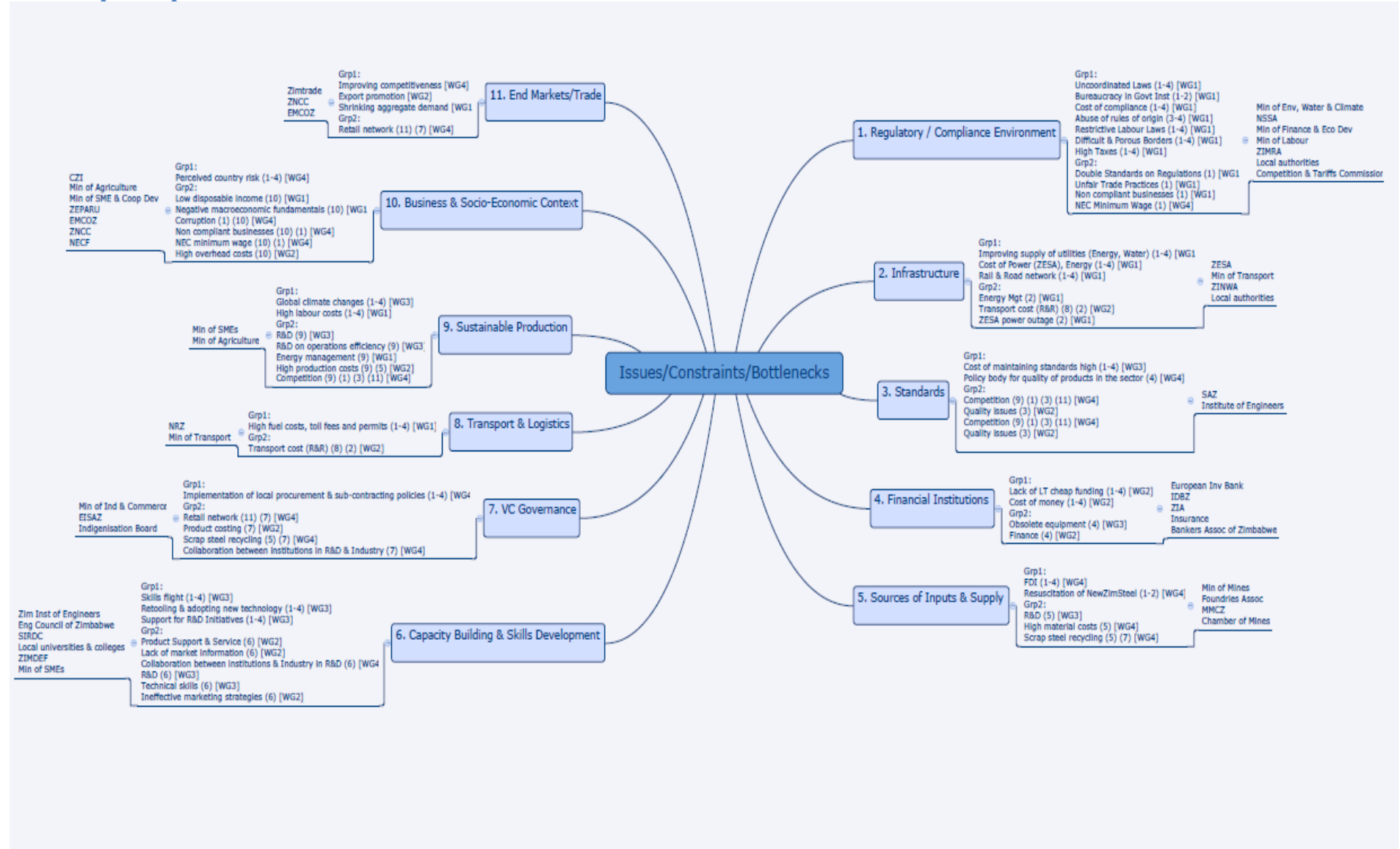
Priority Matrix: Working Group 1

	NEED	NICE
URGENT	<ul style="list-style-type: none"> • Resuscitation of New Zim Steel • FDI • Improving supply of utilities (energy and water) • Rail and road network • Re-tooling and adopting new technology (including green tech) • Skills • Labour law reform • High taxes • Cost of energy • Cost of Money • Long term funding 	<ul style="list-style-type: none"> • Porous borders
IMPORTANT	<ul style="list-style-type: none"> • Cost of compliance • Bureaucracy in Gvt institution • Policy body for quality and standards • R & D • Procurement (locally) • Improving competitiveness • Shrinking aggregate demand 	<ul style="list-style-type: none"> • Uncoordinated laws • Abuse of rule of origin • High cost of maintaining standards • High fuel costs, tall fees and permits

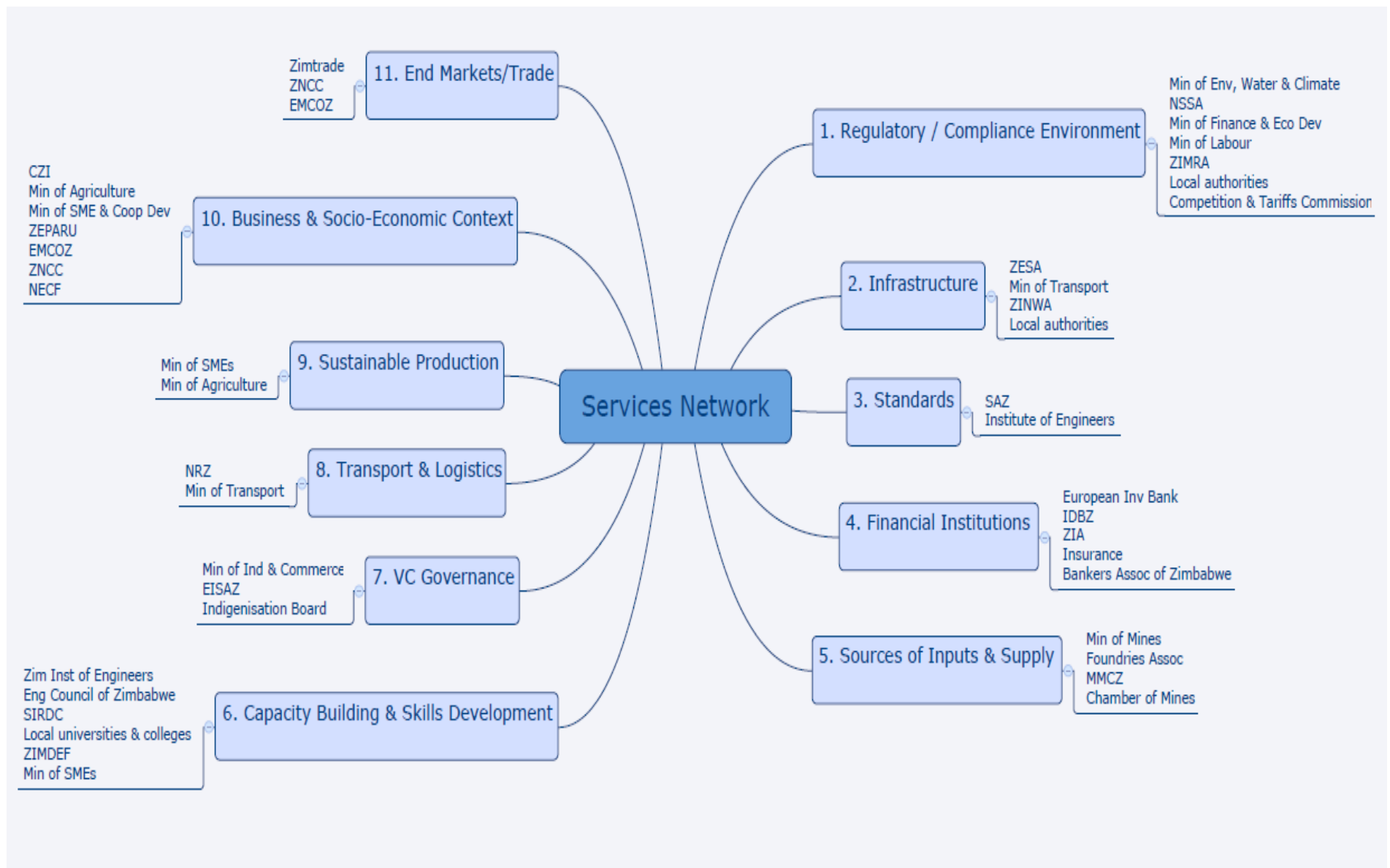
Priority Matrix Working Group 2

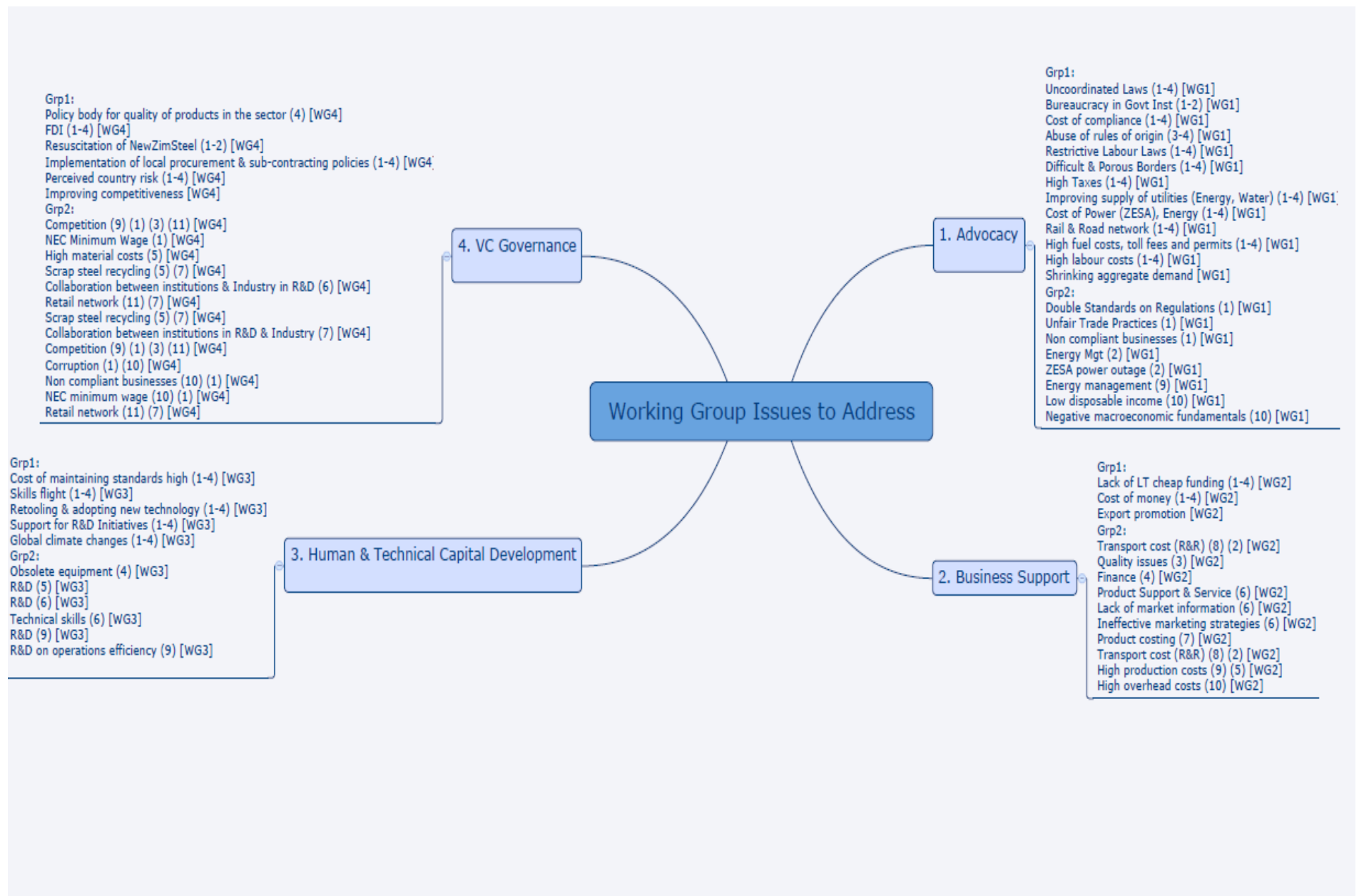
	NEED	NICE
URGENT	<ul style="list-style-type: none"> • Regulatory <ul style="list-style-type: none"> ✓ Laws to protect domestic products ✓ Export incentives ✓ Duty on imports ✓ Costs of compliance ✓ Inefficient internal processes of regulators ✓ Regulations/regulators overlapping ✓ Corruption of regulatory officers • Capacity building & Skills Development <ul style="list-style-type: none"> ✓ Technical training and assistance ✓ Technology transfer ✓ Collaboration and linkages between research institutions and industry ✓ Retooling • Business & Socio economic context <ul style="list-style-type: none"> ✓ Engage into social contracts as an industry ✓ Advocating for policy and financial support to the industry ✓ Corruption 	X
IMPORTANT	<ul style="list-style-type: none"> • Sustainable Production <ul style="list-style-type: none"> ✓ Energy management ✓ Market trends and needs ✓ Production processes efficiency and technological improvement / new technology adoption ✓ Safety, health, quality and environmental management • Sources of inputs and supply <ul style="list-style-type: none"> ✓ Reducing production costs ✓ Reducing material costs ✓ Enhancing, supporting and improving efficiency of space steel recycling • VC Governance <ul style="list-style-type: none"> ✓ Building/improving linkages between industry and retail network ✓ Product costing • Infrastructure <ul style="list-style-type: none"> ✓ Energy management ✓ Reducing transport costs ✓ Zesa power outage • Financial institutions • End market and trade • Transport & logistics 	<ul style="list-style-type: none"> • Standards

Workshop 1 Outputs consolidated



Support Services	Institutions	Value Chain	(Grp 1): Related to Support Services (VC Stages in Parentheses)	(Grp 2): Related to VC Stage (Supp Serv category in parentheses)	Activities
1. Regulatory / Compliance Environment	Min of Env, Water & Climate NSSA Min of Finance & Eco Dev Min of Labour ZIMRA Local authorities Competition & Tariffs Commission	8. End Market	Uncoordinated Laws (1-4) [WG1] Bureaucracy in Govt Inst (1-2) [WG1] Cost of compliance (1-4) [WG1] Abuse of rules of origin (3-4) [WG1] Restrictive Labour Laws (1-4) [WG1] Difficult & Porous Borders (1-4) [WG1] High Taxes (1-4) [WG1]	Product Support & Service (6) [WG2] Double Standards on Regulations (1) [WG1] Unfair Trade Practices (1) [WG1] Low disposable income (10) [WG1] R&D (9) [WG3] Lack of market information (6) [WG2] Non compliant businesses (1) [WG1] Collaboration between institutions & Industry in R&D (6) [WG4]	Articulate a vision for the sector that is endorsed by all Stakeholders
2. Infrastructure	ZESA Min of Transport ZINWA Local authorities	7. Retailing	Improving supply of utilities (Energy, Water) (1-4) [WG1] Cost of Power (ZESA), Energy (1-4) [WG1] Rail & Road network (1-4) [WG1]	R&D (6) [WG3] Energy Mgt (2) [WG1] Retail network (11) (7) [WG4] Negative macroeconomic fundamentals (10) [WG1] Product costing (7) [WG2] Technical skills (6) [WG3] NEC Minimum Wage (1) [WG4] Ineffective marketing strategies (6) [WG2] Non compliant businesses (1) [WG4]	Develop voice and visibility for the sector by strong advocacy to achieve coherent policy, address macro issues that compromise the sector's competitiveness and prioritise issues of strategic significance (WG1)
3. Standards	SAZ Institute of Engineers	6. Production Distribution	Cost of maintaining standards high (1-4) [WG3] Policy body for quality of products in the sector (4) [WG4]	Transport cost (R&R) (8) (2) [WG2] R&D (5) [WG3] Corruption (1) (10) [WG4] Non compliant businesses (10) (1) [WG4] NEC minimum wage (10) (1) [WG4]	Develop a strong network of business support services that addresses the sector needs and priorities (WG2)
4. Financial Institutions	European Inv Bank IDBZ ZIA Insurance Bankers Assoc of Zimbabwe	5. Machine / Equipment Assembly	Lack of LT cheap funding (1-4) [WG2] Cost of money (1-4) [WG2]	R&D on operations efficiency (9) [WG3] Energy management (9) [WG1] NEC minimum wage (10) (1) [WG4] Obsolete equipment (4) [WG3] Finance (4) [WG2] High production costs (9) (5) [WG2] Technical skills (6) [WG3] Competition (9) (1) (3) (11) [WG4] High material costs (5) [WG4] Policy inconsistency (1) [WG1] Regulatory requirements (1) [WG1] Quality issues (3) [WG2] High overhead costs (10) [WG2] Scrap steel recycling (5) (7) [WG4] ZESA power outage (2) [WG1] Non Compliant businesses (1) [WG4] Collaboration between institutions in R&D & Industry (7) [WG4]	Develop the necessary human and technical capital to ensure the sector is productive and has the requisite technical capacity (WG3)
5. Sources of Inputs & Supply	Min of Mines Foundries Assoc MMCZ Chamber of Mines	4. Metal Fabrication	FDI (1-4) [WG4] Resuscitation of NewZimSteel (1-2) [WG4]		Develop a governance model that ensures the institutional linkages are relevant and robust for the sector and its stakeholders (WG4)
6. Capacity Building & Skills Development	Zim Inst of Engineers Eng Council of Zimbabwe SIRDC Local universities & colleges ZIMDEF Min of SMEs	3. Metal Forming	Skills flight (1-4) [WG3] Retooling & adopting new technology (1-4) [WG3] Support for R&D Initiatives (1-4) [WG3]		
7. VC Governance	Min of Ind & Commerce EISAZ Indigenisation Board	2. Metal/Mineral Processing	Implementation of local procurement & sub-contracting policies (1-4) [WG4]		
8. Transport & Logistics	NRZ Min of Transport	1. Mineral / Raw Material Extraction	High fuel costs, toll fees and permits (1-4) [WG1]		
9. Sustainable Production	Min of SMEs Min of Agriculture		Global climate changes (1-4) [WG3] High labour costs (1-4) [WG1]		
10. Business & Socio-Economic Context	CZI Min of Agriculture Min of SME & Coop Dev ZEPARU EMCOZ ZNCC NECF		Perceived country risk (1-4) [WG4]		
11. End Markets/Trade	Zimtrade ZNCC EMCOZ	Trade and Private Sector Development Programme (TPSDP) in Zimbabwe <i>A programme funded by the European Union</i>		Improving competitiveness [WG4] Export promotion [WG2] Shrinking aggregate demand [WG1]	





Annex 3: Criteria for Value Chain Selection

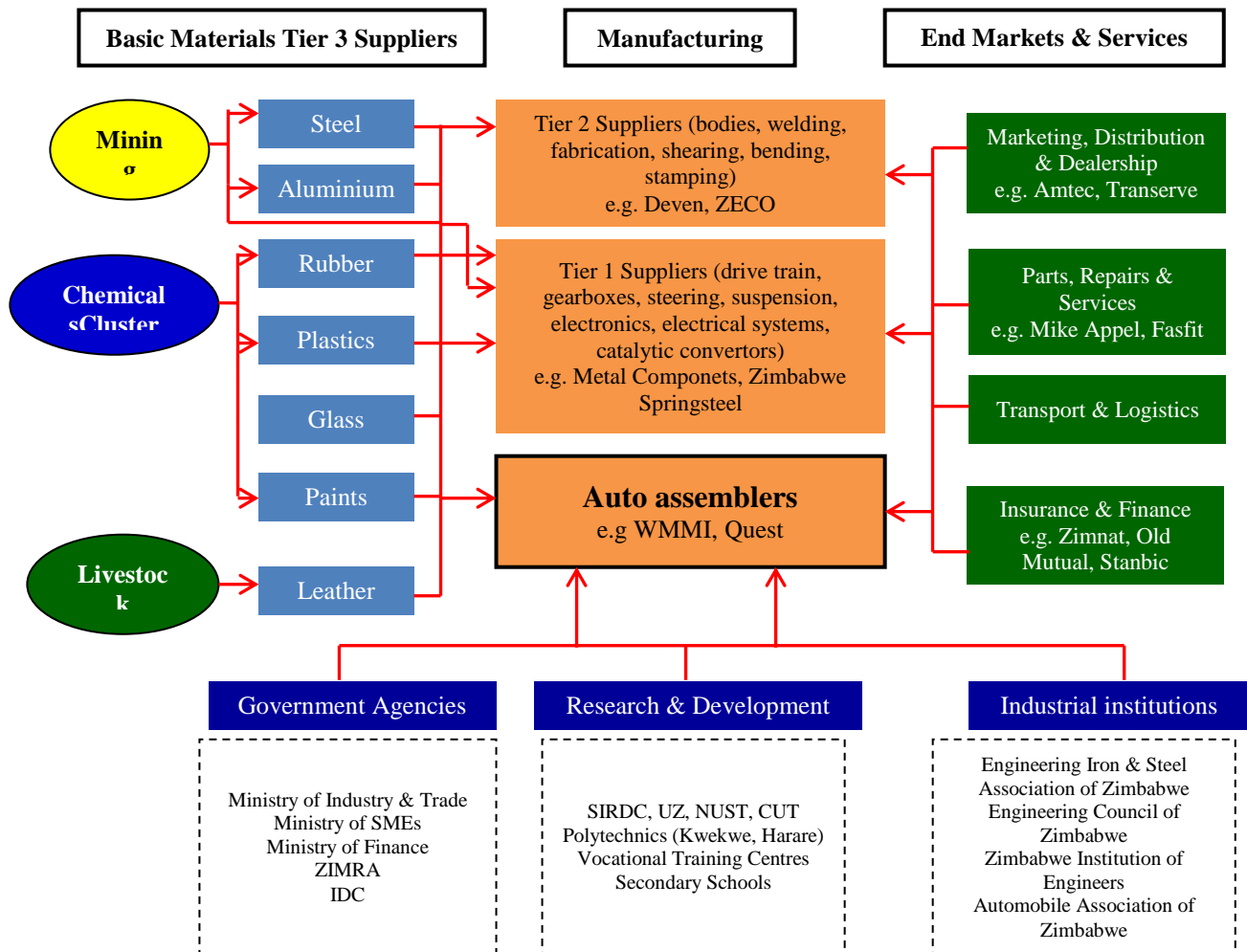
Criteria	Description
1. Market Demand and growth potential	<ul style="list-style-type: none"> - Evidence of strong effective demand for products being produced - Suppliers have ready market for products but are unable to meet demand - Unmet demand from municipal authorities or large public works projects
2. Potential Increase in Income and Wealth	<ul style="list-style-type: none"> - Potential for increased revenues at all levels of value chain - Projected increases in sales, profits or returns to labour
3. Opportunities for linkages	<ul style="list-style-type: none"> - Potential forward/backward linkages between large and small enterprises - Large enterprises are overlooking Micro to Small and Medium Enterprises (MSMEs) as a source of supply or are unable to organise them to meet their demands
4. Potential for employment generation	<ul style="list-style-type: none"> - Potential for enterprise to create new employment as value chain develops/expands
5. Number of MSMEs	<ul style="list-style-type: none"> - Number of MSMEs operating in the value chain
6. Value added potential	<ul style="list-style-type: none"> - Potential of MSMEs to add value to raw materials and get higher earnings
7. Potential for increase in productivity	<ul style="list-style-type: none"> - Potential for technologies/management systems to increase productivity and earnings of enterprise in the value chain

Critical subsector characteristics in the value chain study

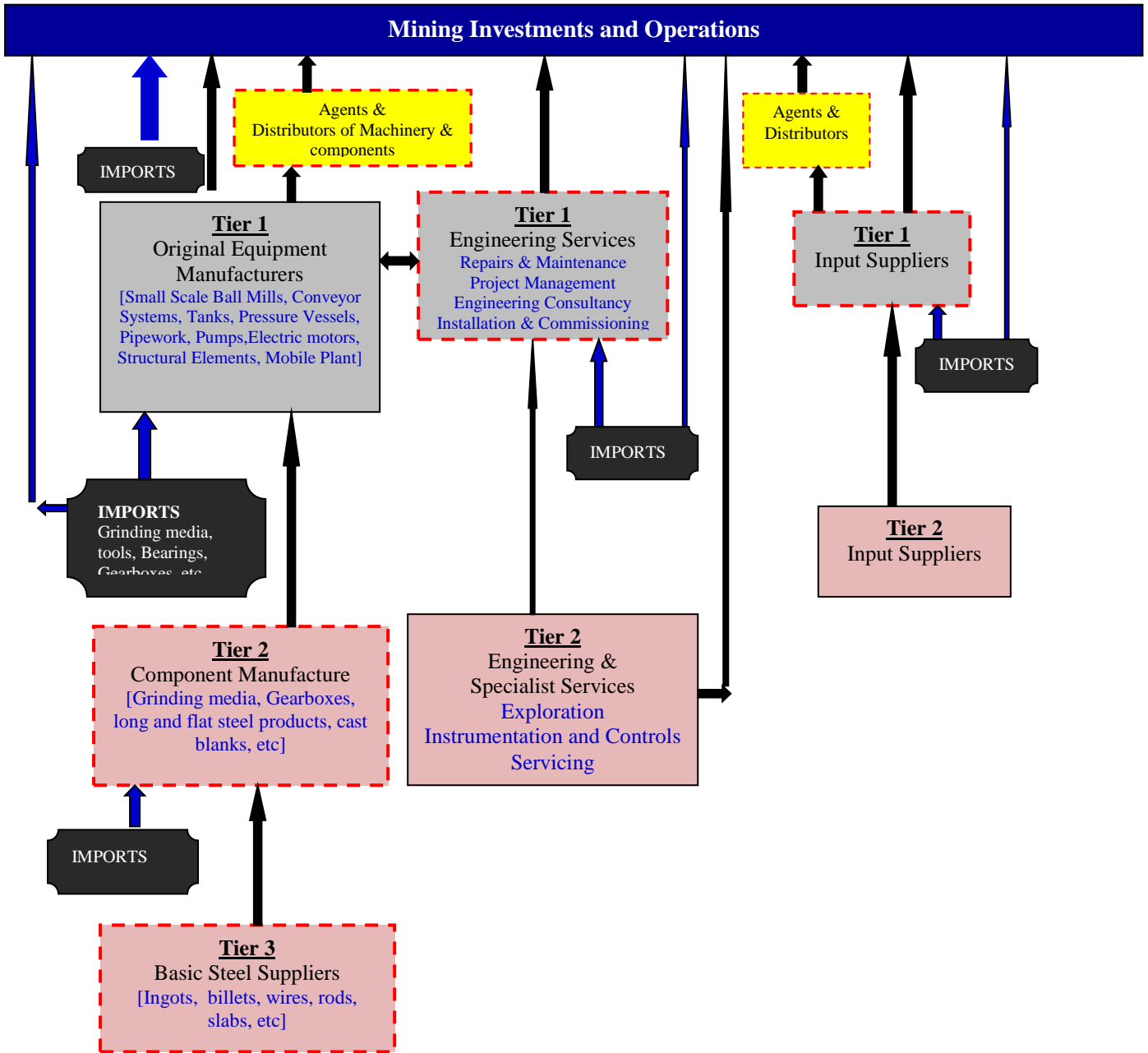
Subsector Characteristics	Criteria for Assessment
Subsector Attractiveness	<ul style="list-style-type: none"> - Historical production growth rate - Size of domestic demand - Labour intensity
Self Sufficiency	<ul style="list-style-type: none"> - Import/Domestic demand - Growth in imports versus growth in market
Export Competitiveness	<ul style="list-style-type: none"> - Share of Zimbabwe in global exports - Growth of Zimbabwean exports versus growth in global exports

Annex 4: Cluster Guidelines

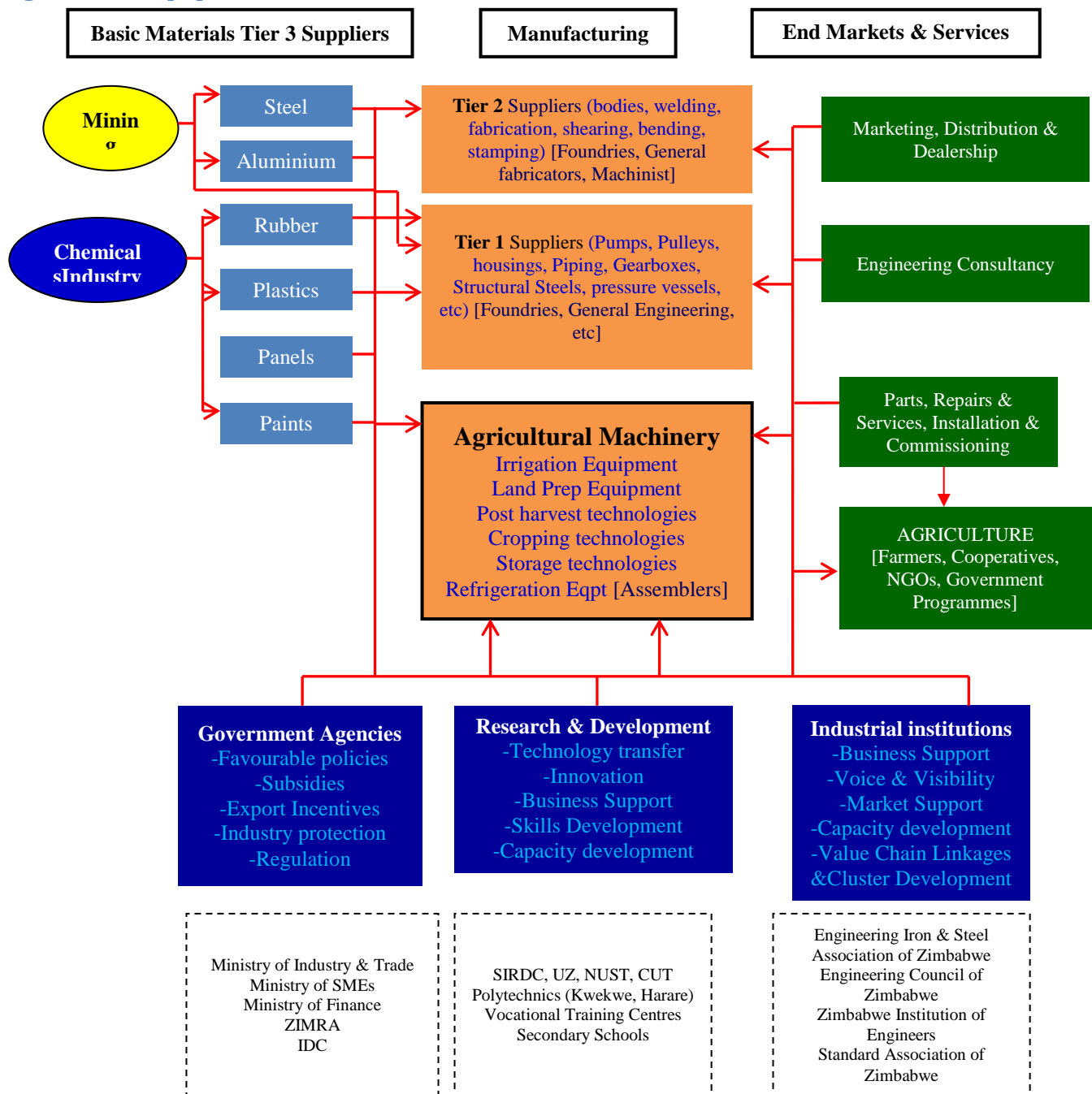
Automobile Cluster Guideline

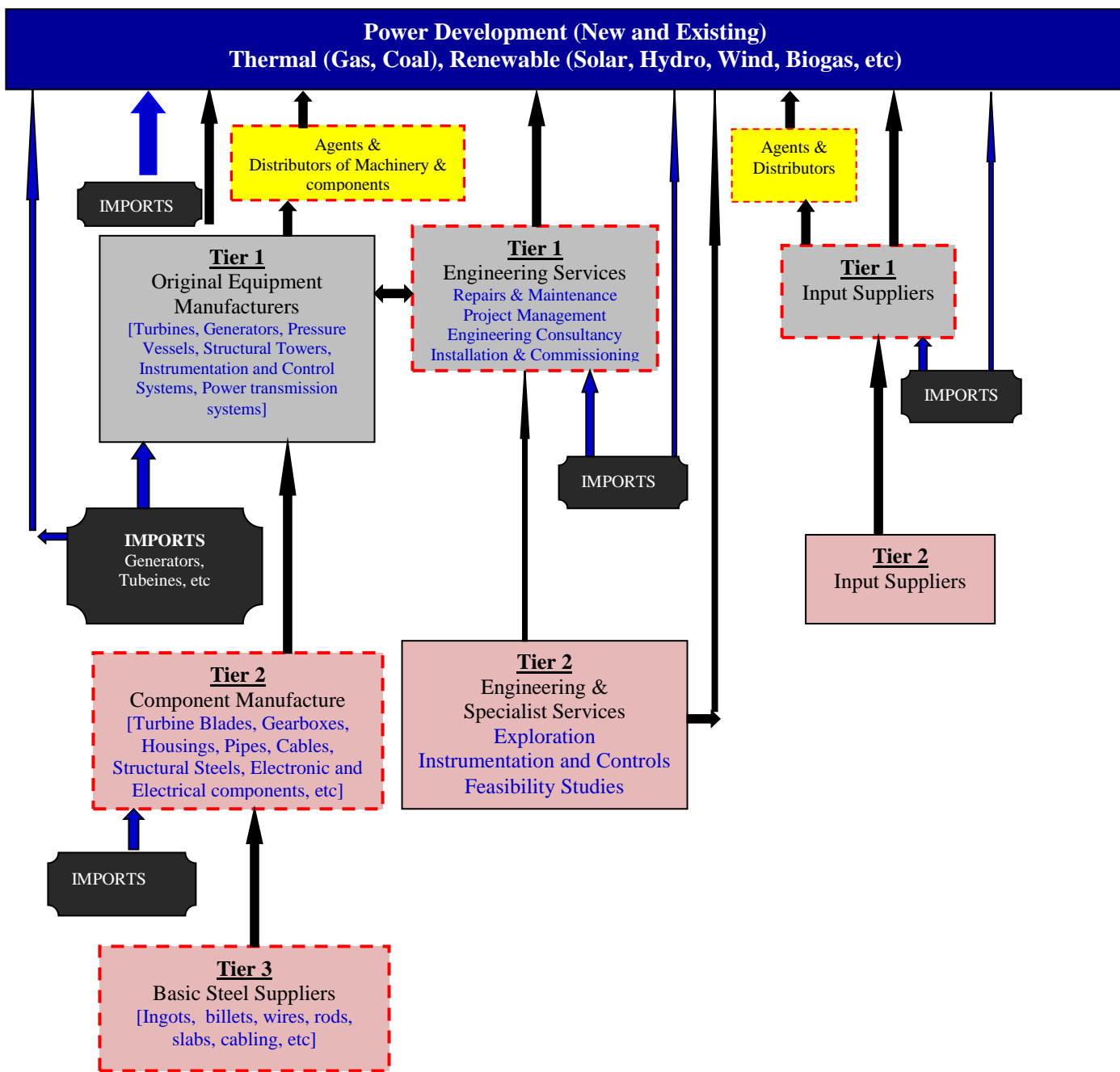


Mining Investments and Operations Cluster Guideline

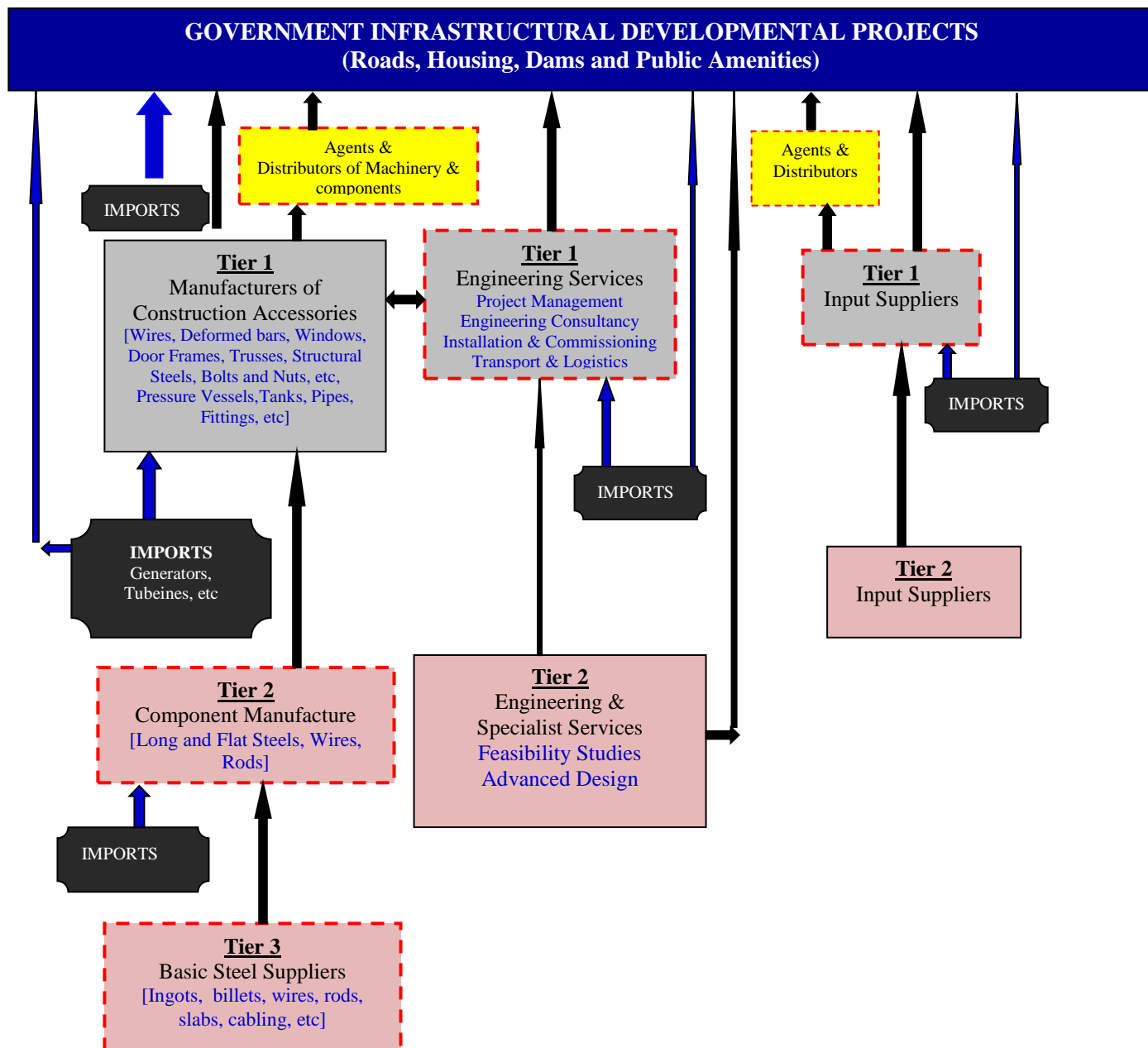


Agricultural Equipment Cluster Guideline





Government Infrastructural Development Projects Cluster Guideline



Manufacturing Sector Cluster Guideline

