

ENSIEM INDUSTRIAL SYSTEMS

CREATING A NEW INDUSTRIAL BASE FOR AFRICA

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1] EIS MISSION

- ❑ **Provide a commercially viable industrial backbone needed to revive the manufacturing industries in Zimbabwe and Africa.**
- ❑ **Provide the platform for innovation by developing new and alternative methods of manufacturing products from all kinds of industries existing in Zimbabwe and Africa.**
- ❑ **Provide a commercial research and development capability to the industrialization of Africa**
- ❑ **Build a versatile Mechanical Technology company designed around the model of Agile Manufacturing.**

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2] EIS PLAN

Acquire :

a) Premises to build a steelwork manufacturing company

or

b) An existing Mechanical engineering Company with equipment in its production workshop to make steel structural work

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3] PRIMARY PRODUCT FOR ACQUIRED COMPANY

- ❑ **Should manufacture a Primary product . So the operation is self sustaining as a business.**

- ❑ **Potential primary products include :**
 - **Haulage Trailers**
 - **Fuel Tankers**
 - **Hose reeling Stations**
 - **Power Generators**
 - **Wind turbines (Africa region)**
 - **Mining Equipment**

4] SECONDARY PRODUCT FOR ACQUIRED COMPANY

- ❑ The Secondary Product is the main growth area of the business.

- ❑ Potential Secondary products include :
 - Industrial Solutions products for manufacturing systems
 - Conveyors (Belt and Vibratory)
 - Packaging Machines
 - Product inspection machines (X-Ray and Metal Detectors)
 - Power plant installations.
 - Industrial Ovens , Heaters .
 - Shipping and Boating equipment
 - Platforms and structures where production lines are mounted.

Most of these technologies consist of a steelwork shell which is easily manufacturable with local raw material and any special components will then have to be sourced outside but that should be minimal

5] MECHANICAL WORKSHOP MACHINERY

- Welding Machines
- Heavy and medium Guillotine for sheet metal work
- Rollers for Tankers work
- Bending machines for tubes
- Profile Laser cutting machines Lathe Machines
- Drilling , Milling machines
- Painting areas and Ovens
- Sand Blasting Equipment
- Heat Treatment Ovens
- Production Bays
- Storage Bays
- Lifting Cranes
- Fork Lifts

6] RAW MATERIALS PROCUREMENT

- ❑ **Steelwork materials should be source able within Zimbabwe if not in Southern Africa. Potential sources of steel should be:**
 - **Zimasco**
 - **Ziscosteel**
 - **SA Steel suppliers**
 - **Aluminium suppliers**
 - **Stainless steel suppliers**

7] TENDERING

- ❑ **Tendering for industrial construction jobs inside and outside zim eg**
 - **Postal Services**
 - **Rail Services**
 - **Baggage handling at Airports**
 - **Any tenders that may involve the supply of machinery**

- ❑ **Tendering for shipping industry jobs outside Zimbabwe**

8] ADVERTISING

- ❑ **Advertise as an Engineering systems designers firm business for :**
 - **Renovating industrial Plants.**
 - **Upgrading product lines**
 - **Design and build production lines**

9] AGILE MANUFACTURING

- ❑ **Operate with an Agile manufacturing ethos**
- ❑ **The Items we cant immediately provide we outsource and sub-contract.**
- ❑ **A design office with project management and design engineering capability can manage a whole manufacturing programme by producing design then subcontract suppliers of bespoke components right up to 100%. The office company will only need premises and equipment to assemble the product. This can be done to various degrees involvement in component manufacture. Examples of operations running like this include MT Safeline UK (Xray machines) , TSG Marines , Dunlop Oil and Marines(Shipdeck structural ware) , etc**

10A] PRIMARY PRODUCTS PROFILE

i. Haulage Trailers



ii. Readily produced in Zim including all raw materials

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10B] PRIMARY PRODUCTS PROFILE

i. Fuel Tankers



ii. Readily produced in Zim including all raw materials

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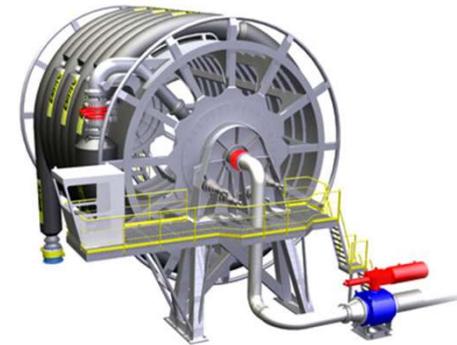
10C] PRIMARY PRODUCTS PROFILE

i. **Hose reeling Stations**



ii. **Steelwork readily produced in Zim**

iii. **Hoses may need outsourcing**



10D] PRIMARY PRODUCTS PROFILE

i. Power Generators

ii. Steelwork Readily produced in Zim



10E] PRIMARY PRODUCTS PROFILE

i. Mining Equipment



- Winches
- Loader Arm New designs Modifications , Repairs,

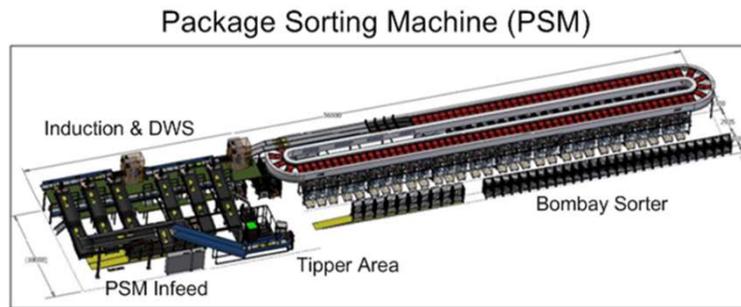
11] SECONDARY PRODUCT

- ❑ **Potential Secondary products include :**
 - **Industrial Solutions products for manufacturing systems**
 - **Conveyors (Belt and Vibratory)**
 - **Packaging Machines**
 - **Product inspection machines (X-Ray and Metal Detectors)**
 - **Power plant installations.**
 - **Platforms and structures where production lines are mounted.**

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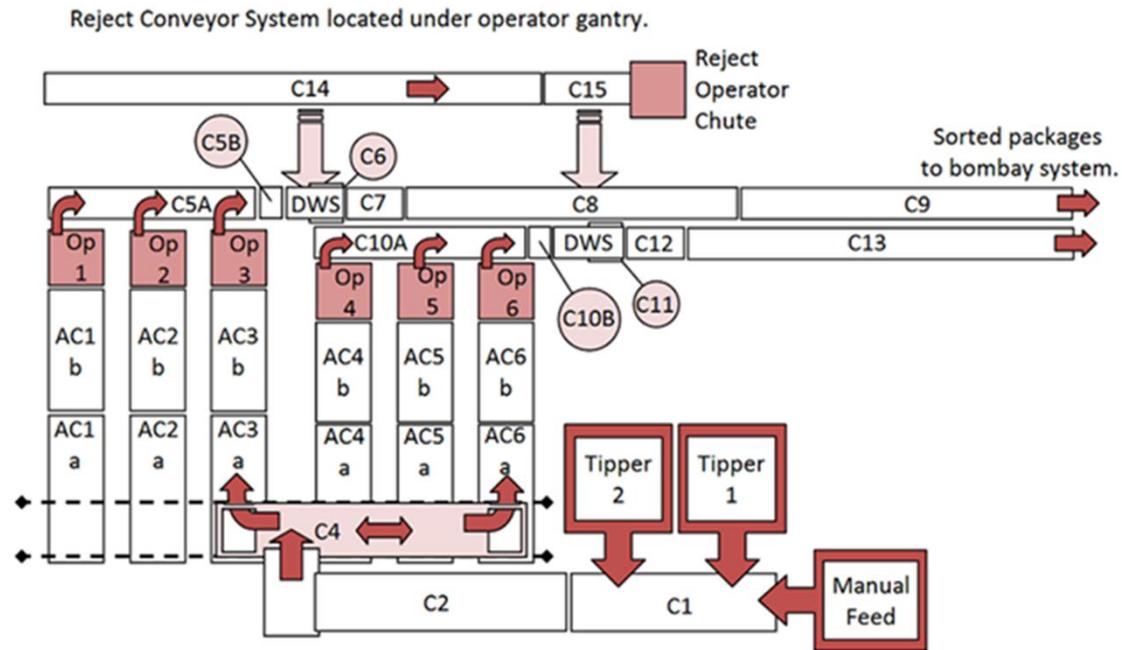
12A] INDUSTRIAL SOLUTIONS FOR MANUFACTURING

- i. **Bidding for Tenders in industrial Projects**
 - **Parcel Sorting line for Local mail system**



- i. **An example of a complete plant that could be made with a very small workshop with the right machines.**
- ii. **I have just led the project as Lead Structural Engineer and Project Engineer to build and install this plant in UK .**
- iii. **This offers me confidence that we can bid to manufacture production lines for companies moving back into Zimbabwe soon.**

12B] PARCEL SORTING PLANT



12C] INDUSTRIAL SOLUTIONS FOR MANUFACTURING

- **Conveyors and Conveying systems**
- **Belt Conveyors**



12D] INDUSTRIAL SOLUTIONS FOR MANUFACTURING

➤ Vibratory Conveyors



12E] INDUSTRIAL SOLUTIONS FOR MANUFACTURING

X ray Inspectors and Metal Detectors



- i. **Steelwork Shell : easily manufacturable in Zimbabwe**
- ii. **X-ray Tubes may need importing from Europe and the electronic circuitry can be designed in Zim or outsourced as well.**

12F] INDUSTRIAL SOLUTIONS FOR MANUFACTURING

- **Packaging Lines for grains , sweets , Agricultural products eg Bossar, Gainsborough , metal detectors, X rays , Domino printers , etc**



Packaging Machinery ,

- Steelwork shell : 95% of machinery**
- Electronic circuitry and control system can be easily designed , reproduced or outsourced.**

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13A] SHIPPING INDUSTRY

i. Shipping and Boating equipment

- Hose Reeling Stations
- Offloading Reels
- Fairleads
- Winches

Markets :

South Africa

Mozambique,

Angola,

Europe

Asia

Americas

Bidding for work in these areas would have to be done outside of Zim likely in Europe and South Africa as well as China and other Far East Markets



13B] SHIPPING INDUSTRY

- i. **Bid for constructing Dry docks in Coastal countries for the shipping industry markets**
 - **Dry Docks used for offloading ships and more importantly for carrying out repair work.**
 - **A lot of major shipping countries take their ships right back to Newcastle for repairs travelling all the way from Angola, Brazil ,etc**



13C] SHIPPING INDUSTRY

➤ Dry Docks. Tyneside



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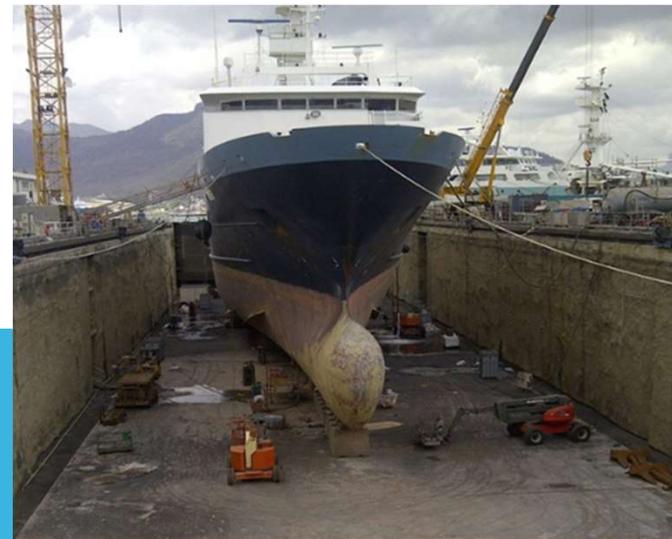
13D] SHIPPING INDUSTRY

- **Shipping Containers (Can be completely manufactured in Zimbabwe)**
- **Can also be repaired and modified as part of services.**



13E] SHIPPING INDUSTRY OF ZIMBABABWE

- **Zimbabwe is landlocked but that does not stop us from being involved in the Shipping industry. There is massive opportunities to be a global player in the shipping world. There is a lot of international trade routes that go around Africa and that's a market for offering services to those plying those routes.**
- **The Oil and Gas industry in Angola , Namibia and Mozambique and up the East and west coasts of Africa provide a possible market for being a player in the field especially if you have a presence in Europe where the major clients are based**



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